

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

IN RE FOREIGN EXCHANGE BENCHMARK RATES  
ANTITRUST LITIGATION

No. 13 Civ. 7789 (LGS)

**CREDIT SUISSE DEFENDANTS' RESPONSE TO PLAINTIFFS'  
LOCAL RULE 56.1 STATEMENT OF ADDITIONAL MATERIAL FACTS**

Pursuant to Local Civil Rule 56.1 of the United States District Court for the Southern District of New York and Rule III.C.6 of Your Honor's Individual Rules and Procedures for Civil Cases, as amended by the Court's January 25, 2021 Order (ECF No. 1555), Credit Suisse Group AG, Credit Suisse AG, and Credit Suisse Securities (USA) LLC (together, the "Credit Suisse Defendants") respectfully submit this Response to Plaintiffs' Local Rule 56.1 Statement of Additional Material Facts in Opposition to the Credit Suisse Defendants' Motion for Summary Judgment and in support of Plaintiffs' Cross-Motion for Summary Judgment. Credit Suisse Defendants do not concede that Plaintiffs' additional facts are material or that Plaintiffs rely on admissible evidence.

173. FX dealers organized their business around trading desks located in financial centers with most trading conducted through London and New York trading desks. *See* PE 21, Expert Report of Michael Melvin at ¶14.

**DEFENDANTS' RESPONSE:** Undisputed.<sup>1</sup>

174. The trading desks consisted of at least traders and salespeople. *See* PE 6, [REDACTED] Dep. at 58:6-19.

**DEFENDANTS' RESPONSE:** Disputed in part. Some FX dealers may have structured their trading desks with traders and salespeople sitting together, but this was not the case for all dealers. *See* PE 6 ([REDACTED] Tr.) 58:6-19 (testifying that while salespeople would be located on the trading floor, they would not sit at the trading desks).

---

<sup>1</sup> While Credit Suisse does not dispute certain facts for purposes of summary judgment, it reserves all rights to raise factual disputes as to these and other issues in the event of further proceedings.

175. The trading desks are clustered to facilitate easy communications. *See* PE 6, ██████████ Dep. at 58:6-19; PE 22, CS-FXLIT-05041024 (Credit Suisse London Desk); PE 23, CS-FXLIT-11226761 (Credit Suisse New York Desk).

**DEFENDANTS' RESPONSE:** Undisputed.

176. Furthermore, a dealer's trading desks located in various regions were linked through intercoms, telephones, Bloomberg or Reuters chats, and emails, again facilitating easy communications. *See* PE 10, ██████████ Dep. at 65:2-21; PE 24, ██████████ Dep. at 38:8-25.

**DEFENDANTS' RESPONSE:** Disputed in part. Individuals working on a dealer's trading desks located in one region had access to various forms of communication with desks located in other regions. Credit Suisse objects that the term "easy" is undefined and vague. Credit Suisse also disputes Paragraph 176 as unsupported to the extent it implies an increased level of communications due to the referenced forms of communication. *See* DE 63 (June 28, 2018 Dep. of ██████████ ("██████████ Tr.")) 68:3–20 (testifying that as head of Credit Suisse's New York FX desk he only communicated with Credit Suisse's Asia desk approximately once a week if "something important . . . happened").<sup>2</sup> Credit Suisse objects to Paragraph 176 as unsupported to the extent it suggests that all FX traders at dealer entities used each of the enumerated communication platforms.

177. FX traders employed at the same Defendant banks sat next to each other on the trading desk and shared information from chats with each other by voice. *See* PE 6, ██████████ Dep.

---

<sup>2</sup> References to exhibit numbers ("DE") 1 through 50 correspond to the exhibits attached to the January 29, 2021 Declaration of Herbert S. Washer in Support of the Credit Suisse Defendants' Motion for Summary Judgment. References to DE 51 through 98 correspond to the exhibits attached to the April 9, 2021 Declaration of Herbert S. Washer in Support of the Credit Suisse Defendants' Motion for Summary Judgment and in Opposition to Plaintiffs' Cross-Motion for Summary Judgment.

at 323:1-5 (testifying that he shared information learned in interbank chat room with other traders at Barclays and UBS).

**DEFENDANTS' RESPONSE:** Disputed in part. The evidence cited in Paragraph 177 offers no support for the stated proposition that all FX traders at the 16 Defendant banks shared information learned in chat rooms with their colleagues on the same trading desk. Some traders employed at the same Defendant banks in the same offices sat next to each other on the trading desk. On occasion some traders may have shared some information learned in interdealer chat rooms with other traders who did not participate in the chat room, but, as Plaintiffs concede, interdealer chat rooms were exclusive and “invitation only,” and the information exchanged in interdealer chat rooms was meant to stay within the chat room. *See* Jan. 29, 2021 Local Rule 56.1 Statement in Support of Credit Suisse Defs.’ Mot. for Summ. J. (“Credit Suisse 56.1 Statement”) ¶¶ 150–64; DE 44 (BARC-FX-CIV\_00607512) at 514 (interbank chat in which [REDACTED] writes to [REDACTED] “mate .. ntg leaves this forum”); DE 52 (CS-FXLIT-06211866) at 869 (November 2011 interbank chat in which [REDACTED] (Bank of America) writes “I think the current line up is very strong and I wud [sic] favour leaving the truth a very exclusive club”); DE 51 (CS-FXLIT-03219327) at 337 (January 2011 interbank chat in which [REDACTED] (Bank of America) rejects the suggestion of adding a new trader to the chat room and states the chat room should “not expand members.”). In the example provided by Plaintiffs, PE 6 ([REDACTED] Tr.) 323:1–5, [REDACTED] is testifying about one interdealer chat room, “The Cartel,” and states that he shared “some” information learned in the chat room with his colleagues at UBS and Barclays. *Id.*

178. Spot traders were responsible for making the prices shown to the dealer’s customers and managing the dealer’s risk. *See* PE 2, [REDACTED] Dep. at 254:8–11.

**DEFENDANTS' RESPONSE:** Undisputed, with clarification. Traders at dealer banks communicated prices and spreads to FX salespeople who in turn interfaced with customers. *See* Credit Suisse 56.1 Statement ¶¶ 58–59. FX salespeople had the ability to “mark up” or “mark down” the spreads and prices quoted by traders before passing them along to customers. DE 64 (Aug. 1, 2019 Dep. of [REDACTED]) 93:2–14 (testifying that the sales team had the ability to mark up or mark down prices); DE 4 ([REDACTED] Tr.) 250:20–22 (“[T]he sales trader could change the trader’s quote either in favor of the client or not in favor of the client.”); DE 65 (Feb. 14, 2019 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 144:20–145:14 (“At the time I pass the rate to the salesperson and then the salesperson may have chosen to put a spread on the price” or the salesperson would narrow the price “[i]f they felt that the trading price was too wide or they wanted to protect their client and wanted to keep the client and they valued the client. But primarily it would be because they probably thought that the spread was inaccurate.”).

179. Spot traders had responsibility for quoting customers in a specific currency pair or pairs. *See* PE 10, [REDACTED] Dep. at 62:22–63:1.

**DEFENDANTS' RESPONSE:** Undisputed, with clarification. *See* response to ¶ 178 *supra*.

180. The larger currencies (by volume), such as EUR/USD, had dedicated spot traders. *See* PE 6, [REDACTED] Dep. at 40:14–15.

**DEFENDANTS' RESPONSE:** Disputed in part. Credit Suisse objects that the phrase “larger currencies (by volume)” is undefined and vague. Paragraph 180 offers no support for the stated proposition that all Defendants employed dedicated spot traders for larger currencies (by volume). Many Defendants employed dedicated spot traders for specific currency pairs. Credit Suisse disputes Paragraph 180 as unsupported to the extent it suggests that all Defendants employed dedicated spot traders for each currency pair. *See* DE 66 (Nov. 15, 2018 Dep. of [REDACTED])

(“[REDACTED] Tr.”)) 46:4–7 (testifying that he was not a specialist in the EUR/USD currency pair because his “expertise is . . . in generic foreign exchange” and his “ability to make decisions in the euro-dollar was no different than that of any other currency pair”); DE 65 ([REDACTED] Tr.) 15:2–13 (testifying that while he was primarily responsible for the euro-dollar, he also traded the “dollar, yen, Swiss, sterling”); DE 67 (Apr. 5, 2018 Dep. of [REDACTED]) 106:11–15 (testifying that he covered “a lot of currency pairs”); DE 24 ([REDACTED] Tr.) 21:5–14 (testifying that he was responsible for a particular currency pair “[a]t times” and “would assume responsibility for certain currency pairs” if the bank had staff shortages or people were moving around).

181. Smaller currency pairs, such as the Scandinavian currencies or emerging market currencies, were often grouped together and assigned to a single, spot trader. *See* PE 6, [REDACTED] Dep. at 162:6-9 (citing [REDACTED] who traded Scandinavian currencies as example).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the term “smaller” is undefined and vague. *See* response to ¶ 180 *supra*. Many Defendants employed spot traders who were responsible for groups of currency pairs, such as the Scandinavian currencies or emerging market currencies.

182. Spot traders routinely covered each other’s currencies when the usual trader was out, assuring seamless coverage for the desk. *See* PE 10, [REDACTED] Dep. at 43:24-44:4; PE 1-336 ([REDACTED] (Credit Suisse) asks [REDACTED] (BoA) “how wide you show in 50 eurgbp” and explains “Im covering gbp today as [REDACTED] has some emails to read”).

**DEFENDANTS’ RESPONSE:** Undisputed.

183. Spot traders reported to a trading desk head. *See* PE 6, [REDACTED] Dep. at 39:4-22.

**DEFENDANTS’ RESPONSE:** Undisputed.

184. Market makers quoted prices at which they are willing to buy or sell a designated volume of a given currency pair. *See* PE 10, ██████ Dep. at 91:7-10.

**DEFENDANTS' RESPONSE:** Undisputed, with clarification. Quoting two-way prices was one method for market-makers to make prices, *see* Credit Suisse 56.1 Statement ¶ 68, but two-way prices were not the only quotes that market-makers offered to clients. For example, market-makers may quote one-way prices, and clients may trade on resting orders or at benchmark rates. *See* DE 68 (Nov. 29, 2018 Dep. of ██████ (“█████ Tr.”)) 165:3–7 (testifying that resting orders are “orders you have in the market so when it gets to a particular level you execute something”); DE 69 (June 6, 2018 Dep. of ██████ (“█████ Tr.”)) 73:18–74:5 (testifying that he executed orders around fixes or benchmark rates); DE 70 (Aug. 21, 2019 Dep. of ██████ (“█████ Tr.”)) 28:12–20 (“[T]here is a series of ways that the client transactions can take place” through “outright instruction, where the client would simply ask to buy or sell currency. . . . There would be a side shown risk transfer price. Or there could be a two way price. Or the client could leave a static order resting in the order book.”); DE 71 (Aug. 24, 2020 Dep. of ██████) 38:5–6 (“Sometimes clients didn’t do two-way prices. They did a one-sided.”).

185. For dealers, the spread was effectively the price they charge for serving as a market maker. It was an important source of revenue. *See* PE 17, ██████ Ex. 17, NYDFS Credit Suisse Consent Order at ¶6 (“Dealers profit on the difference between bid and ask prices, known as the ‘spread.’”); PE 2, ██████ Dep. at 81:16-19 (testifying that it increases the opportunity for the bank to make money if the client traded on the wider spread).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 185 offers no support for the stated proposition that for all dealers the spread was effectively the price charged for serving as a market-maker or the proposition that spread was an important source of revenue for all dealers. As

explained in Credit Suisse’s 56.1 Statement ¶ 68, traders at market-making banks will sometimes be asked to provide a two-way quote or a quote that includes both the price at which the trader would buy the currency (the bid price) and the price at which the trader would sell the currency (the ask price). The difference between the bid price and the ask price is the bid-ask spread or spread. The *spread* is not the same as the *price*. See, e.g., DE 72 (Mar. 4, 2021 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 48:9–23 (“The spread is how wide your bid versus your offer is when you make a price to the customer. . . . It just measures what . . . price you make to a customer. Q. And when you say it’s the price that you make to the customer, does that in any way reflect the cost of the service of your providing liquidity? A. No.”); DE 70 ([REDACTED] Tr.) 62:7–11 (testifying that spreads are not a measure of price and that “the spread is a measure of how aggressive a bank is potentially going to be at a given time”); DE 73 (Jul. 19, 2019 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 196:14–15 (“[T]he difference between the spread and the price is quite a different concept.”). In the portion of his testimony cited by Plaintiffs in Paragraph 185, [REDACTED] states that a market-maker does not “make money specifically on the spread unless somebody is willing to trade with you on both sides of the market at the same exact time. That’s the only time where the spread becomes a relevant number. The spread is nothing more than the price I’m willing to do either side of that trade.” PE 2 ([REDACTED] Tr.) 80:5–15. Traders also testified that spreads do not correlate with profitability. See, e.g., DE 72 ([REDACTED] Tr.) 48:9–14 (“A. The spread is how wide your bid versus your offer is when you make a price to the customer. Q. And what does that represent in terms of the profitability to the bank? A. It means absolutely nothing.”); DE 74 (Dec. 16, 2020 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 146:24–147:8 (“Q. Was one of the reasons that you were disclosing spreads with traders at competitor banks to increase the bank’s profitability? . . . A. I don’t think so.”); DE 75 (Sept. 24, 2019 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 160:4–15 (“[Q.]



‘Managing the spreads quoted to customers is one way dealers profit from FX market making.’ Would you agree, sir, that dealers profit from spreads? A. Again, not necessarily, no . . . spread is a spread, is an indication. Pricing would be very different.”); DE 73 (██████ Tr.) 61:17–21 (“Q. And the reason there is a spread is so that the FX market-maker has an opportunity to make a profit; right? . . . A. No, not particularly.”). Credit Suisse also disputes the relevance and admissibility of the NYDFS Consent Order. *See* response to ¶ 266 *infra*.

186. Accordingly, dealers wanted wider spreads. Wider bid-ask spreads allowed them to buy lower (on the bid) and sell higher (on the ask), increasing the likelihood for profits on a trade. *See* PE 2, ██████ Dep. at 80:16-81:19; 82:11-15; PE 10, ██████ Dep. at 93:5-16 (testifying that a wider spread would potentially enable Credit Suisse buy lower and sell higher).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 186 offers no support for the proposition that all dealers wanted wider spreads or the proposition that wider bid-ask spreads increased the likelihood for profits on a trade for all dealers. Wider bid-ask spreads may allow a dealer to buy lower (on the bid) and sell higher (on the ask), to the extent that such quotes result in a transaction. *See* response to ¶ 185 *supra*. In some instances, dealers prefer *narrower* spreads. *See* Credit Suisse 56.1 Statement ¶¶ 143, 146; PE 2 (██████ Tr.) 82:21–83:8 (“Q. Did you prefer to have wider spreads or narrower spreads? . . . A. Well, again, it’s too generic a statement. If every client traded every time on a wider spread, your probability of making money is greater. But it’s a competitive market where clients are often asking multiple banks at the same time for the same price. So just by quoting a wider spread doesn’t mean you’re going to make more money at all.”); PE 10 (██████ Tr.) 92:4–17 (“Q. An FX dealer such as Credit Suisse would generally want a wider spread? A. Not all the time. Q. Sometimes? A. Sometimes. Q. When wouldn’t they want a wider spread? A. If you have a position or you want to know what that customer is doing, you

want to make sure that he dealt with you, so you would show him . . . a sharp price, a choice price, . . . to see what he’s doing.”).

187. Dealers compensated their spot traders, in part, on the profitability of their trading activity. *See* PE 4, [REDACTED] Dep. at 37:14-38:1 (testifying that Deutsche Bank had a bonus system that was in part related to both the trader’s personal P&L and the bank’s P&L).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 187 offers no support for the proposition that all dealers compensated their spot traders, in part, on the profitability of the traders’ trading activity. Some dealers compensated their spot traders, in part, on the profitability of their trading activity. Some dealer banks did not compensate their traders based on the profitability of their trading activity. *See* DE 63 ([REDACTED] Tr.) 104:16–24 (testifying that an FX trader’s bonus at Credit Suisse was not a fixed percentage of either his personal P&L or the desk P&L and was discretionary); DE 68 ([REDACTED] Tr.) 35:22–36:17 (testifying that he “just got given a number at the end of the year” for his discretionary bonus and did “[n]ot always” believe that if he made more profit for the bank that he would potentially receive a better bonus); DE 76 (May 31, 2019 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 67:17–25 (testifying that bonuses were “totally discretionary”).

188. Traders were incentivized to show wider spreads to customers. Wider spreads increased bank profits, which resulted in larger bonuses. *See* PE 3, [REDACTED] Dep. at 35:15-22 (testifying that he was very motivated to hit his budget because that could affect his compensation).

**DEFENDANTS’ RESPONSE:** Disputed. Paragraph 188 offers no support for the stated propositions that traders were incentivized to show wider spreads to customers and that wider spreads increased bank profits and trader bonuses. *See* responses to ¶¶ 185–86 *supra*. Furthermore, Plaintiffs’ citation to the testimony of [REDACTED] does not support the proposition

that traders were “incentivized to show wider spreads to customers.” In the relevant portion of testimony, ██████ states that he was “[v]ery motivated” to meet his trading room’s “budget” or the monetary figure his trading desk head wanted to make. PE 3 (█████ Tr.) 35:15–22. He did not state that he was motivated to show wider spreads. *Id.*

189. For customers, spreads reflected the price they paid to transact in FX. *See* DE 1, Robin Report at ¶21; PE 2, ██████ Dep. at 80:13-15 (testifying that “[t]he spread is nothing more than the price I’m willing to do either side of that trade”).

**DEFENDANTS’ RESPONSE:** Disputed. Paragraph 189 offers no support for the proposition that, for customers, spreads reflected the price they paid to transact in FX. *See* response to ¶ 185 *supra*. Further disputed on the ground that the citation to Plaintiffs’ expert, Eric Robin, misrepresents Mr. Robin’s report. Paragraph 21 of Mr. Robin’s report does not state that spreads reflect the price customers paid to transact, but states that “[s]pread[s] [are] the way prices are conveyed to customers.” DE 1 (Robin Report) ¶ 21.

190. The narrower the spread, the more competitive the price, and the lower the cost of trading. *See* PE 17, ██████ Ex. 17, NYDFS/Credit Suisse Consent Order at ¶7; DE 1, Robin Report at ¶22.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 190 offers no support for the proposition that narrower spreads always lead to more competitive prices and lower costs of trading. A narrower spread does not imply a more competitive or aggressive price. When offering two-way bid-ask quotes to customers, traders often engaged in “skewing” or “shading” whereby they would shift the bid price, the ask price, or both, from the perceived midpoint of the market. *See* DE 68 (█████ Tr.) 167:9–14 (“We always skew our prices. . . . [N]o-one shows the same price. You skew it on what your position is and what you think the market’s [sic] going to do in

the future. You don't quote what you see on the screen. You quote where you think it's going to go."); DE 65 (██████ Tr.) 151:1–4 ("Q. In the context of trading FX what does 'skewing' mean to you? A. Skewing price to the left or the right, bid or offer."). By shifting one or both prices the trader can make the purchase or sale price more or less attractive to the potential counterparty. This tactic may also induce the customer to trade on one side or the other. If both the bid and ask prices are shifted, the spread may remain the same but the opportunity on one side of the transaction is potentially more attractive. As Deutsche Bank trader ██████ explained, "you could have a bank that would show a [narrower] 5 pip spread which showed a bid at 80, but you could have a bank that showed a [wider] 10 pip spread which showed a bid at 81, and if the client wants to sell, they're going to trade at 81 all day long." DE 73 (██████ Tr.) 62:12–21; *see also* DE 22 (██████ Tr.) 256:21–25 ("You could effectively show a wider spread than someone else, but you could read it the wrong way and it may suit the customer. They may, in fact, get a better price, even though your spread was wider."). Former Bank of America and Credit Suisse trader ██████ testified that skewing may also mean that "the spread may be the same across four banks, but the prices would all be different." DE 68 (██████ Tr.) 167:15–17. By way of further answer, FX prices and spreads are not the same, *see* response to ¶ 185 *supra* (distinguishing FX spreads from FX prices) and two-way prices are not the only way FX traders quoted prices to customers during the Class Period, *see* response to ¶ 184 *supra*. Credit Suisse also disputes the relevance and admissibility of the NYDFS Consent Order. *See* response to ¶ 266 *infra*.

191. "The spread quoted plays a central role in a customer's decision whether to place an order with a particular dealer." "If a spread is too wide, a customer may choose to go to a different bank offering tighter spreads." *See* PE 17, ██████ Ex. 17, NYDFS/Credit Suisse Consent

Order at ¶7; *see also* PE 6, [REDACTED] Dep. at 87:11-13 (Q: Fair to say customers would want to see tight spreads, all else being equal? A: Yes.).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 191 offers no support for the proposition that the spread quoted plays a central role in all customers' decisions whether to place an order with any particular dealer. Spreads are one factor customers consider in deciding whether or not to trade on a given quote, but they are not "central" in all customers' decision-making. As explained *supra* in response to Paragraph 190, customers typically care more about *prices* than spreads in deciding whether to place an order with a particular dealer. *See* DE 73 ([REDACTED] Tr.) 62:12–16 ("Based on my many years of foreign exchange trading experience, I would say that the spread has a minimal decision-making effect. I'd say that the actual price is more concerning to the client about whether they are going to trade."); DE 70 ([REDACTED] Tr.) 62:8–11 ("[T]he spread is a measure of how aggressive a bank is potentially going to be at a given time. The spreads were fluid and then you had skew on the spreads as well. So again I think it becomes more about the price."). Further disputed as the term "central" is vague and undefined. Credit Suisse also disputes the relevance and admissibility of the NYDFS Consent Order. *See* response to ¶ 266 *infra*.

192. Market makers should have competed with other market makers on the basis of the spreads they showed to their customers. *See* PE 25, Robin Ex. 1, 01/23/20 Robin Report at ¶48.

**DEFENDANTS' RESPONSE:** Disputed in part. Credit Suisse objects that what market-makers "should have" done states a legal conclusion. Credit Suisse disputes Paragraph 192 as unsupported to the extent that this paragraph implies that market-makers did not actually compete with one another, on the basis of the spreads they showed customers and otherwise. *See* Credit Suisse 56.1 Statement ¶¶ 142–47 (citing to record evidence indicating FX traders competed for customer

business by showing clients competitive spreads). Credit Suisse further disputes Paragraph 192 for the reasons explained *supra* in response to ¶¶ 190–91.

193. During the Class Period, the 16 Defendant banks in this case were competitors of one another in the FX market in market-making activities. *See* PE 26, ██████████ Dep. at 45:8-46:3 (testifying that “anyone that supplies FX needs,” including other large market-making banks, was a competitor of Credit Suisse).

**DEFENDANTS’ RESPONSE:** Disputed in part. The Defendant banks are competitors in the FX markets in certain instances and on certain trades, but the Defendant banks are not always competitors with one another. In many instances the 16 Defendant banks are counterparties of one another. *See* Credit Suisse 56.1 Statement ¶¶ 51, 61, 77; PE 26 (██████████ Tr.) 45:19–46:3 (testifying that other large FX market-making banks were also counterparties); DE 77 (Nov. 6, 2019 Dep. of ██████████) 49:3–50:20 (testifying that he viewed Credit Suisse as a market counterpart to Standard Chartered). Whether or not a particular Defendant bank was a competitor of another Defendant bank depended on a number of factors, potentially including the relevant time period, time of day, type of customer, and currency pair. *See* DE 78 (Jul. 19, 2019 Dep. of ██████████ (“██████████”)) 311:23–312:16 (testifying that whether a bank was a competitor “would depend if they were covered by my bank sales team”); PE 10 (██████████ Tr.) 109:13–21 (testifying that FX traders did not always judge other banks as their competitors); DE 68 (██████████ Tr.) 122:23–123:7 (testifying that banks were competitors “[f]or some customers maybe; for others maybe not” and that whether a bank is a competitor or not “can’t be generalised”); DE 75 (██████████ Tr.) 144:23–145:10 (testifying that he did not always view other FX traders as competitors because “[t]hey may be specialized in certain currencies”); DE 70 (██████████ Tr.) 34:4–15 (testifying that Citi was a competitor to Deutsche Bank in the euro dollar but that “I

don't think they were competing with us [Deutsche Bank] in sterling. . . . [t]here were some currencies where banks are stronger than other banks . . . . competition was fluid and it was changing"). Several traders at other Defendant banks testified that they did not consider Credit Suisse to be a competitor. *See, e.g.*, DE 66 (██████ Tr.) 33:13–15 (“[Q.] Credit Suisse, did you consider them a competitor in foreign exchange trading [while you were employed by RBC]? A. No, market participant.”); DE 79 (Nov. 13, 2018 Dep. of ██████████ (“██████ Tr.”)) 42:18–43:6 (“Q. Now, let’s run through a couple here . . . during the relevant period, did you regard BNP Paribas as a competitor to Bank of America’s FX business? A. They were a market participant . . . Q. Credit Suisse? A. Exactly the same.”).

194. FX customers typically cared more about spreads than currency prices. *See* PE 27, Melvin Ex. 3, CS-FXLIT11958231 at 8231 (03/27/12 email exchange between ██████████ and Credit Suisse noting that ██████████ is “interested in consistency and eliminating negative surprise more than the absolute best price. And given we rarely price banks we expect spreads to hold...”); PE 28, ██████████ Ex. 12, JPMC-CIVIL-0000362022 at 2022 (09/02/10 email noting that one of the most important things ██████████ looks for in a counterparty is spreads).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 194 offers no support for the proposition that all customers typically cared more about spreads than currency prices. *See* responses ¶¶ 190–91 *supra*.

195. The Office of the Comptroller of the Currency recognized the bid-ask spreads that an FX dealer showed to its customers were “proprietary Bank information” and, therefore, were not considered market color. *See, infra* ¶¶ 278, 287; PE 1-419 (09/12/12 chat with ██████████ saying that, upon consulting with lawyers and compliance department, “[n]o asking for spreads” because “[t]hat looks like collusion”).

**DEFENDANTS' RESPONSE:** Disputed in part. The Office of the Comptroller of the Currency (“OCC”) refers to “FX rate spreads” as an example of what could comprise “proprietary Bank information,” but Plaintiffs provide a misleading description of the OCC’s language in the Citibank Consent Order. In its Consent Order with Citibank, the OCC states: “While participating in multibank chat rooms, some of the Bank’s G10 spot FX traders discussed engaging in potential misconduct with traders from other banks or market participants, including: . . . Disclosure of confidential Bank information, including the disclosure of information regarding customer order flows and proprietary Bank information, such as FX rate spreads.” See November 11, 2014 Citibank Consent Order at 4–5, *available at* <https://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157c.pdf>. Credit Suisse disputes Paragraph 195 to the extent that this paragraph implies spread information is never market color. Plaintiffs’ expert Robin Poynder could not clearly define “market color” or delineate what information might be considered “market color.” Mr. Poynder testified that “it’s maybe easier to say what it’s not. I’m not sure I can give you an absolute definition of what it is. It is not competitively sensitive information.” DE 80 (Feb. 28, 2020 Dep. of Robin Poynder) 33:21–34:2. He further testified that “if you asked 20 different traders, you might get 20 different definitions of market color.” *Id.* at 36:18–20. [REDACTED] (former Head of FX at Credit Suisse), for example, testified that if a competitor knows a trader’s spread, it does not give them the ability to undercut that spread “if they don’t know which way we’re actually going to quote the client. It’s just information.” DE 81 (Mar. 14, 2018 Dep. of [REDACTED]) 153:18–23. Furthermore, many FX traders discussed spreads as a proxy for liquidity in the FX markets and considered generic spread discussions as a form of market color. *See, e.g.*, DE 75 ([REDACTED] Tr.) 45:9–16 (“Spread is not a price; spread is an indication. . . . Spread would be an understanding of liquidity and not necessarily related to a price or a spread shown to a customer.”);



*id.* at 46:9–11 (“[S]preads are not prices. Spreads are very different. Spreads are an indication.”); DE 82 (Aug. 13, 2019 Dep. of [REDACTED]) 201:21–24 (testifying that spread discussions were “a proxy for liquidity parameters in normal market conditions”); DE 4 ([REDACTED] Tr.) 231:10–13 (“I engaged in conversations with participants in the marketplace to gain market color. Some of that was about liquidity conditions, which we answered via the proxy of spreads sometimes.”); DE 19 ([REDACTED] Tr.) 91:10–18 (testifying that he discussed spreads to “get an idea of what liquidity looks like in the market at any given moment”).

196. In late 2006 and early 2007, FX traders began using permanent Bloomberg and Reuters chat rooms to communicate with each other. *See* PE 1-2 (on February 20, 2007, [REDACTED] (Credit Suisse), [REDACTED] (RBS), and [REDACTED] (Goldman Sachs) formed a chat room, indicating that it was a new way for the traders to communicate. [REDACTED]: “hello . . . testing.” [REDACTED]: “ah hello.” [REDACTED]: “the[y] wil[l], let anyone have bbg [Bloomberg] these days.” [REDACTED]: “times are a changung [REDACTED].”); PE 1-1 (12/18/06 forming the “Horras” chatroom).

**DEFENDANTS’ RESPONSE:** Undisputed.

197. Once formed, chat rooms could, and did, exist for years. *See* PE 29, [REDACTED] Dep. at 36:8-12 (testifying that P-Chats lasted until they were closed down).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse disputes Paragraph 197 to the extent it suggests that all chat rooms lasted for years. *See* Credit Suisse 56.1 Statement ¶ 83; PE 32 ([REDACTED] Tr.) 91:2–7 (testifying that some chat rooms only lasted for “three sentences”).

198. During the Class Period, FX traders used Bloomberg and Reuters chat rooms, including persistent group chats (“P-Chats”), to communicate with each other on a daily basis in the ordinary course of their employment. *See* PE 6, [REDACTED] Dep. at 95:6-19 (testifying that all or almost all FX traders were in chat rooms with competing traders); PE 29, [REDACTED] Dep. at 34:21-

24 (testifying that he used Bloomberg every day as an FX trader at Credit Suisse); PE 10, [REDACTED] Dep. at 116:4-12 (testifying that FX traders at Credit Suisse used chat rooms every day in the normal course of business); *see also* PE 1 (Chat Summary).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 198 offers no support for the proposition that all FX traders communicated with each other on a daily basis during the Class Period. P-Chats enabled FX traders to “communicate with each other on a daily basis.” The frequency at which a particular FX trader participated in any particular persistent chat varied by trader and chat room, among many other factors. *See* PE 30 ([REDACTED] Tr.) 63:6–22 (“[T]here would be plenty of times where I would go step off, take a walk, wouldn’t see anything on the chat for a while. It kind of just scrolled. So you really didn’t go back and read it. I personally never went back and reread a chat. So stuff would just be on there, and I didn’t know what was on there.”); DE 83 (Apr. 6, 2018 Dep. of [REDACTED]) 122:21–123:9 (“I think you’ll find in most cases, I logged in, and then I was pretty much gone the rest of the day.”). FX traders also used chat rooms to communicate internally with other traders and salespeople, and to speak with clients. *See* Credit Suisse 56.1 Statement ¶¶ 78, 80, 81.

199. Traders participated in multiple chat rooms on a daily basis, forming an extensive communication network with traders from competing dealers. *See* DE 17, [REDACTED] Tr. at 91:11–92:8 (testifying that he used chat rooms every day in the normal course of business while at Barclays and UBS, and was simultaneously a member of at least 50 P-Chats at Barclays, approximately 10–15 of which were P-Chats with traders from other competing banks).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 199 offers no support for the stated proposition that traders formed an extensive communication network with traders from competing dealers. FX traders could participate in multiple chat rooms, some of which included FX traders

from other market-makers. As discussed in response to Paragraph 193 *supra*, the Defendant banks were not always “competing dealers.” In many instances they were important counterparties. *Id.* Moreover, the chat rooms that FX traders participated in did not form a single, “extensive communication network.” As discussed in response to Paragraph 177 *supra* chat rooms were exclusive or invitation-only, and traders often participated in chats with other traders that they were friends with or formerly worked with, and whom they trusted. *See* Credit Suisse 56.1 Statement ¶¶ 150–58. To the extent Paragraph 199 suggests that information shared in one chat room was shared with other chat rooms such that all traders had access to the same information, this is unsupported. *See* Credit Suisse 56.1 Statement ¶¶ 159–64. FX traders also used chat rooms to communicate internally or with clients. *See* response to ¶ 198 *supra*.

200. For example, in 2011, former Barclays trader [REDACTED] was a member of “The Cartel,” a member of “The Sterling Lads,” a member of “Horras,” a member of “Slaaaaggggsssss 2,” a member of “Essex Express,” and participant in many other chat rooms. Membership in the five above-named chats provided [REDACTED] with continuous and instantaneous access to traders from Credit Suisse and nine other coconspirator banks. *See* PE 1 (Chat Summary).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects to Paragraph 200’s reference to “Credit Suisse and nine other coconspirator banks,” as the questions of whether there was a conspiracy and whether Credit Suisse participated in said conspiracy are legal questions presently before the Court. *See* Sept. 3, 2019 Opinion and Order (ECF No. 1331) at 19, 25. Former Barclays trader [REDACTED] was a member of the named chat rooms, but he did not have “instantaneous access to Credit Suisse and nine other coconspirator banks.” The chat rooms only provided access to traders from other banks to the extent traders employed by such banks were participating at the relevant time. Chat room membership shifted and traders moved banks during

the Class Period. For example, FX traders [REDACTED] and [REDACTED] moved from Barclays to Credit Suisse. *See* PE 1-244; PE 1-318; PE 1-327; and PE 1-382. Contrary to Plaintiffs' assertion, from December 2006 to August 2011, [REDACTED] did not have access to Credit Suisse traders via the named chat rooms. *See* PE 1-1; PE 1-244; PE 1-318; PE 1-327; and PE 1-382.

201. The conspirator banks encouraged their FX traders to participate in multi-bank chat rooms and discuss spreads shown to customers with their competitors. *See* PE 11, [REDACTED] Dep. at 103:20-104:4 ("A. We were encouraged to be in those chat rooms...."), 108:11-18 (testifying that while at Credit Suisse, "[i]t was encouraged for us to use interbank chat rooms. During those chats we were asked to talk about what spreads were out there in the market at the time."), 109:10-20 (testifying that he was asked to discuss spreads in interbank chat rooms during his time at HSBC and Barclays); PE 30, [REDACTED] Dep. at 93:7-94:6 ([REDACTED] (BNP, DB), testified that in response to customers' complaint about spreads offered his supervisor would tell him "What is wrong with you? Go figure out what is someone else showing and why you're off, because you need to know your business.' ... So you kind of begin talking to, you know, these traders you met on the street around the same age, a lot of the time, and you say, oh, this is – I showed this.... it was ... a mutual respect for each other."); PE 10, [REDACTED] Dep. at 108:21-109:25 (testifying that he was aware that Credit Suisse's FX traders participated in multiple chat rooms with traders from competing banks), 114:1-115:14 (testifying he was aware that subordinate traders would share opinions on spreads to show customers with traders from competing banks).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 201 offers no support for the stated propositions that all Defendants encouraged their FX traders to participate in multi-bank chat rooms or that all Defendants encouraged FX traders to "discuss spreads shown to customers with their competitors." The record suggests that some employees of some Defendants encouraged

traders to participate in multi-bank chat rooms. Plaintiffs' citation to the deposition of [REDACTED] does not support their assertion that Defendants encouraged FX traders to discuss spreads shown to customers with their competitors and is a mischaracterization of [REDACTED]'s testimony. [REDACTED] testified that "we were asked to talk about what spreads were out there in the market at the time." PE 11 ([REDACTED] Tr.) 108:11–18. And in response to Plaintiffs' next question, "[s]o during the time you were at Credit Suisse, you were encouraged to talk about spreads that you were quoting to your customers and you were encouraged to discuss that in interbank chat rooms with your competitors; is that right?", [REDACTED] clarified that "I don't know if 'encourage' would be the correct word. We were asked by salespeople what spreads were being made out there." *Id.* 108:19–109:4. Plaintiffs similarly mischaracterize the testimony of [REDACTED]. [REDACTED] testified that he was *not* aware of Credit Suisse FX traders exchanging information concerning customer transactions in chat rooms, PE 10 ([REDACTED] Tr.) 110:3–9, but rather that he was aware FX traders at Credit Suisse may have exchanged information about historical transactions or transactions that had already occurred. *Id.* 110:10–16. He also testified that he did not believe that Credit Suisse traders "were ever sharing spread information," but instead were "probably providing opinions" if asked for an opinion on spreads during an illiquid time in the FX markets. *Id.* 114:1–23. Plaintiffs also mischaracterize the testimony of [REDACTED]. [REDACTED] testimony regarding the suggestion from his supervisor to "[g]o figure out what is someone else showing and why you're off" comes after a customer has told the bank that its pricing was too wide and that the bank's "competitors are doing much better than you." *See* PE 30 ([REDACTED] Tr.) 93:4–9.

202. Former Citi's London desk head, [REDACTED], described this chat conduct among traders working at competing banks reflected "the customs, norms, and practices of the industry." *See* PE 31, [REDACTED] Ex. 1, [REDACTED] Witness Statement at ¶98.

**DEFENDANTS' RESPONSE:** Disputed. Credit Suisse objects that the phrase “this chat conduct” is vague and undefined. Moreover, Plaintiffs mischaracterize this portion of [REDACTED] witness statement. [REDACTED] did not opine that any specific chat conduct reflected the customs, norms, and practices of the FX industry. Rather, he stated, in full: “The way I conducted myself was guided by viewing how my colleagues, supervisors and the industry operated, as well as having a strong ethical and moral compass. I always viewed myself as having total regard for the bank and its clients. I strongly believe in an industry such as the FX industry (which was not regulated), the customs, norms and practices of the industry, are what define correct conduct, not ambiguous policies.” PE 31 ([REDACTED] Witness Statement) ¶ 98.

203. FX traders would sometimes ask the same question about spreads simultaneously in different chat rooms. *Compare* PE 1-321 (09/07/11 chat with [REDACTED] asking [REDACTED] of Credit Suisse if 7 pips was too wide a spread in 40 million USD/CHF) *with* PE 1-322 (09/07/11 chat with [REDACTED] asking different chat room same question 13 seconds later).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 203 offers no support for the proposition that all traders would sometimes ask the same question about spreads simultaneously in different chat rooms. The examples cited by Plaintiffs reflect certain traders asking similar questions about spreads around the same times in different chat rooms, but Credit Suisse objects that the term “sometimes” is vague and undefined.

204. Traders shared views as to what spreads to show customers, including both spreads for which they had primary trading responsibility and for currency pairs for which they did not. For example, as an EUR/USD trader, [REDACTED] frequently discussed other currencies with his competitors. *See* DE 17, [REDACTED] Tr. at 285:21-25 (testifying The Cartel chat room “most frequently” discussed EUR/USD); PE 1-431 (11/15/12 chat discussing spreads in EUR/JPY and

getting on the “same page”); PE 1-340 (10/12/11 chat discussing spreads in AUD/USD); PE 1-414 (08/20/12 chat discussing spread in one billion GBP/USD); *see, generally*, PE 1 (Chat Summary).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the term “frequently” is vague and undefined. Paragraph 204 offers no support for the stated proposition that all traders shared views as to what spreads to show customers. Some traders shared views about spreads in chat rooms. To further clarify, not all discussions regarding spreads were about spreads to show customers. *See* response to ¶ 195 *supra* (indicating that traders discussed spreads as a proxy for liquidity). Credit Suisse further disputes Paragraph 204 to the extent that it implies that [REDACTED] agreed to coordinate spreads with other FX traders. [REDACTED] testified during his deposition that the agreement to which he testified among the other members of The Cartel chat room did not include an agreement to coordinate spreads shown to customers. *See* Credit Suisse 56.1 Statement ¶ 131.

205. Traders shared spreads being quoted by other members of their trading desks, who were not participants in a particular chat room, for example, if the currency pair was outside the expertise of the chat room participants. *See* PE 1-14 (11/21/07 chat, in which [REDACTED] consulted with Citi’s Australian dollar trader, [REDACTED], and conveyed the right spreads to Barclays trader [REDACTED]); PE 1-219 (08/06/10 chat, in which [REDACTED] asked Citi’s scandi trader, [REDACTED], to get an answer to [REDACTED] question regarding spreads in EUR/SEK and EUR/NOK, and [REDACTED] passed that information to Barclays scandi trader); PE 1-183 (02/25/10 chat with [REDACTED] asking [REDACTED] and [REDACTED] “guy can u ask ure dealers what spread in 55 usdsek”).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 205 offers no support for the stated proposition that all traders shared spreads being quoted by other members of their trading desks who were not participants in a particular chat room. The examples cited by Plaintiffs reflect [REDACTED] and other traders discussing spread information from traders that were not participating in the chat room but were at the trading desk of another chat room participant. Credit Suisse objects to Paragraph 205 as overbroad and unsupported to the extent that the paragraph suggests that discussing spreads with other members of the trading desks of chat room participants was common or widespread. Credit Suisse disputes as unsupported Plaintiffs' assertion that the spreads discussed were spreads being quoted to customers. *See* responses to ¶¶ 195, 201 *supra*.

206. Traders also shared spreads with each other that were agreed to in different chat rooms, by simply copying and pasting their text of those chats into the operative chat rooms. *See* PE 1-147; PE 6, [REDACTED] Dep. at 134:4-135:5 (discussing cut and paste from different chat with [REDACTED] within [REDACTED] Ex. 5).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 206 offers no support for the stated propositions that all traders shared spreads with each other that were discussed in different chat rooms or that traders agreed to spreads in chat rooms. Traders had the ability to copy and paste information from one chat room into another. [REDACTED] deposition discusses an example of this. PE 1-147, however, does not involve the copying and pasting of text in an interbank chat; it is a chat room discussion between [REDACTED] (Deutsche Bank) and [REDACTED] (RBS) about USD/GBP. Credit Suisse also disputes Paragraph 206 as unsupported to the extent it suggests that copying and pasting information from one chat room into another was common or widespread.

207. Chat rooms also allowed traders to maintain and extend their lines of collusive communication even if they moved to another bank. *See* PE 1-317 (08/16/11 chat where members



of The Dream Team welcome ██████ back to the chat room.); PE 1-162 (10/05/09 chat where ██████ is invited back into The Dream Team chat room after leaving Credit Suisse for Société Générale); PE 32, ██████ Dep. at 91:20–92:11 (testifying that he continued to chat with people with whom he had previously worked with at Bank of America and continued to chat with former Credit Suisse employees when they moved to other banks).

**DEFENDANTS’ RESPONSE:** Disputed. While FX traders could continue to participate in a given chat room after moving to another employer, Paragraph 207 offers no support for the stated proposition that traders maintained or extended “lines of collusive communication,” and Credit Suisse disputes that chat rooms permitted traders to “maintain and extend their lines of collusive communication.” *See* responses to ¶¶ 199, 200 *supra*. Credit Suisse further disputes that traders agreed to spreads in chat rooms. *See* CS 56.1 ¶¶ 89–94, 96–97, 99, 101–102 (FX traders denying that they entered into any agreement regarding FX spreads).

208. FX traders believed that without chat rooms, they would make less money. *See* PE 9, ██████ Dep. at 116:2–117:25; PE 1-428 (10/24/12 chat with ██████ saying banning multi-bank chats “will cost banks millions”).

**DEFENDANTS’ RESPONSE:** Disputed. Paragraph 208 offers no support for the stated proposition that all FX traders believed that they would make less money without chat rooms. The quote from the cited chat transcript is accurate, but other traders testified that the information shared in chat rooms was not useful to their trading. *See, e.g.*, DE 76 (██████ Tr.) 103:18–21 (testifying that he did not believe the information shared in chat rooms would be helpful to him); DE 84 (Aug. 6, 2018 Dep. of ██████) 145:2–8 (testifying that the termination of interbank chat rooms “didn’t really change” the way that he performed market-making activities).

209. FX traders believed that traders from their own or other banks were engaging in similar chat room conversations that they were not a part of. *See* PE 12, ██████████ Dep. at 63:5-12 (Q: Did you think at the time you were at Bank of Tokyo that other FX traders from competing banks were engaging in similar chat room conversations that you weren't a part of? A: Yes. I would say it was a standard market procedure, yes. It's very commonplace, yes.); DE 32, ██████████ Tr. at 100:6-19 (testifying that traders used chatroom as a reality check on pricing and it is a common element for any chat room); PE 31, ██████████ Ex. 1, ██████████ Witness Statement at ¶98 (claiming that the way ██████████ conducted himself in multi-bank chat rooms was guided by viewing how his colleagues, supervisors and the industry operated, and reflected the "customs, norms and practices of the industry").

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 209 offers no support for the proposition that all FX traders believed that traders from their own or other banks were engaging in similar chat room conversations that they were not a part of. Some FX traders testified to being aware that other FX traders also generally participated in Bloomberg chat rooms. Credit Suisse objects to Paragraph 209 as overbroad and unsupported to the extent it implies that FX traders were generally aware of other specific chat rooms that they were not participants in or aware of conversations taking place in other chat rooms. *See* Credit Suisse 56.1 Statement ¶¶ 106–07. In the portion of his testimony cited by Plaintiffs, ██████████ states that "reality checks were done in a number of chat rooms," without clarifying whether this only applied to the chat rooms he personally participated in. DE 32 (██████████ Tr.) at 100:6–19. ██████████ later testified: "I don't know what traders in other chats that I wasn't a member of were up to." *Id.* 178:17–19. Plaintiffs also mischaracterize ██████████ statement. *See* response to ¶ 202 *supra*.

210. FX traders used chatrooms to coordinate spreads that they showed to customers.

*See* PE 1 (Chat Summary).

**DEFENDANTS' RESPONSE:** Disputed. Rule 56(c)(1)(A) requires that the party asserting a fact “must support the assertion” by “citing to *particular* parts of materials in the records.” Citing generally to 456 excerpts from 449 separate case documents does not fulfill the requirements of Rule 56. Furthermore, nothing in PE 1 supports the proposition that all FX traders used chat rooms to coordinate spreads that they showed to customers in 52 currency pairs. PE-1 is also replete with chat excerpts that do not contain any discussion of spreads. *See, e.g.*, PE 1-435; PE 1-442; PE 1-443. Credit Suisse also disputes that PE 1 supports the proposition that the traders cited in PE 1 used chat rooms to coordinate spreads. *See* PE 1-409 (a trader who has already provided a spread quote to a customer in 200 million USD/NZD asks other traders for their opinion on spreads and traders respond with 4 pips, 15 pips, 18 pips, and 20 pips); *see also* Credit Suisse 56.1 Statement ¶¶ 89–94, 96–97, 99, 101–102 (FX traders testified that they did not participate in an agreement to coordinate FX spreads). For example, Plaintiffs cite to PE 1-379 as evidence of Credit Suisse coordinating spreads with other Defendant banks. In that chat, no Credit Suisse trader was even in the chat room when the alleged spread-fixing activity occurred (or at any time until three days later), and a review of the relevant portion of the chat indicates that there was no agreement as to spreads among the remaining traders in the chat room. *See* DE 61 (CITI-FX-CIVIL\_00240251) at 263, 268–269, 275 (February 2012 interdealer chat excerpted as PE 1-379 in which a trader who has already provided a spread quote to a customer in 150 million USD/JPY asks other traders for their opinion on spreads and traders respond with 5 pips and 6 pips). Plaintiffs also lack evidence that spreads discussed in chat rooms were actually shown to customers.

211. On March 7, 2007, in response to a customer request for spreads, [REDACTED] (Goldman Sachs FX trader) wrote in a chat room to [REDACTED] (Credit Suisse) and [REDACTED] (RBS), “we should all agree on the same spreads it pointless otherwise and we keep cutting spreads more and more . . .” *See* PE 1-3.

**DEFENDANTS’ RESPONSE:** Disputed in part. The quotation from the May 7, 2007 chat is accurate, but Plaintiffs’ characterization that this comment was “in response to a customer request for spreads” is unsupported. Credit Suisse disputes Paragraph 211 to the extent it suggests that the participants in the chat room entered into an agreement regarding spreads or that the participants agreed to widen spreads in 52 currency pairs. At 16:28:09 in the chat, [REDACTED] states “we should all agree on the same spreads it pointless otherwise and we keep cuttin spreads more and more” and [REDACTED] replies “someone will always break ranks // probably u in fairness no offence but u dont get the biz thru charm and whit.” DE 85 (CS-FXLIT-10020301) at 325–326.

212. On January 22, 2008, FX traders from Credit Suisse, Goldman Sachs, and RBS agreed to “sign a pact” “on spreads.” *See* PE 1-22 (01/22/08 chat between [REDACTED] of Credit Suisse, [REDACTED] of Goldman Sachs, and [REDACTED] of RBS).

**DEFENDANTS’ RESPONSE:** Disputed. Credit Suisse disputes that traders from Credit Suisse, Goldman Sachs, and RBS agreed to “sign a pact” on spreads. First, this discussion involved only three traders discussing only two currency pairs (NOK/SEK and NZD/USD); it says nothing about other traders at these banks, any traders at other banks, or any currency pairs other than the two being discussed. One participant in the quoted chat, [REDACTED], testified that the line “lets sign a pact / on spreads” was a joke and denied entering into such an agreement. DE 22 ([REDACTED] Tr.) 258:5–259:5 (“Q. As you sit here today, can you shed any light on what you meant by: ‘lets sign a pact on spreads’? A. It’s a joking comment, making light of the fact that we were showing tighter

spreads than the market conditions suggested we should. Q. Okay. Just to be very explicit, thinking back to the 2007-2013 time period, did you ever enter into any sort of pact or agreement with other participants in this chat room relating to spreads? A. Never. I would show as aggressive price as I possibly could to win a trade. Q. And putting aside this chat room and this document, did you ever enter into any sort of pact or agreement with any other trader at any other bank relating to FX spreads? A. Never.”).

213. In a phone call dated May 16, 2011, [REDACTED] told the sales desk that there was no need to narrow his spread in EUR/CAD. To make sure he was quoting the right spread, [REDACTED] asked traders at three chat rooms at almost the same time. After consulting with traders at other banks in chat rooms, [REDACTED] called back to the sales desk to guarantee them that Citi’s spread was in line with its competitors. *See* Plaintiffs’ Response to ¶146, *supra* (citing [REDACTED] Exs. 6-10).

**DEFENDANTS’ RESPONSE:** Disputed in part. [REDACTED] placed a May 16, 2011 call to the sales desk regarding EUR/CAD and on that same day, participated in the three referenced chat rooms. Credit Suisse disputes that [REDACTED] participated in the three chat rooms to “make sure he was quoting the right spread” or that his spread opinion was influenced by his participation in the three chat rooms. Traders in the referenced chat rooms discussed different spreads in response to [REDACTED] query. *See* PE 1-299, PE 1-300, and PE 1-302 (indicating spreads of 14, 15, 18, and 20 for 75 million EUR/CAD). After these discussions, [REDACTED] did not adjust the spread he had already independently provided to sales. *See* PE 20 ([REDACTED] Ex. 10) (stating “[s]o the average is around 16 and we’ve shown 15”).

214. It was common market practice for FX traders to coordinate and agree with competitors on the spreads to show customers. *See* PE 18, [REDACTED] Dep. at 172:21-173:1 (testifying

throughout his deposition that sharing spread information was “common practice” or “common market practice”); PE 3, ██████ Dep. at 178:5-11 (Q: It certainly wasn’t uncommon for traders who trusted one another to ask each other how wide to show in a particular currency pair; is that right, sir? A: Correct.); PE 4, ██████ Dep. at 148:3-14 (testifying that exchanging information regarding right spread with competitors was a common type of communication with traders at other banks); PE 3, ██████ Dep. at 191:20-192:3 (Q: In fact, information sharing and working together with traders you trusted to arrive at the right spread or the right price was something that was done in the FX market by FX traders on multibank chats; isn’t that right, sir? A: Yes.); PE 6, ██████ Dep. at 178:4-8 (testifying that he exchanged spreads with competitors on a regular basis).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 214 offers no support for the stated proposition that all FX traders coordinated spreads or agreed with competitors on the spreads to show customers. *See* Credit Suisse 56.1 Statement ¶¶ 89–102 (FX traders denying that they entered into any agreement regarding their FX trading or FX spreads). Additional context from the trader depositions that Plaintiffs selectively and misleadingly quote is instructive. For example, ██████ testified: “A. I think it was common market practice sharing spreads with other banks. Q. And so because it was common market practice at the time you didn’t believe there was anything wrong with doing it right? A. **These wouldn’t necessarily be the spreads that were shown to a client and it had little reflection on the ultimate price that was shown to a client.** So that’s right.” DE 24 (█████ Tr.) 68:16–24 (emphasis added). ██████ testified: “Q And you didn’t view those types of communications to be problematic. In fact, you viewed them to be common exchanges of market color, correct? . . . A **Understanding market color was one thing that the spreads would allow you, would give you.** Q And this was a common type of

communication with other traders in your view, correct? A People would discuss spreads.” PE 4 (█████ Tr.) 148:3–14 (emphasis added). Both of these excerpts illustrate that the traders in question did not view their chat discussions regarding spreads as coordination of or agreement on spreads. Furthermore, Mr. █████ and Mr. █████ also testified that they did not enter into any agreements with other FX traders regarding spreads. *See* DE 24 (█████ Tr.) 175:10–25 (“Q. During the relevant period, did you enter into any understanding with traders at other banks relating to FX spreads? A. Absolutely not. . . . Q. And during the relevant period did you enter into any sort of agreement with traders at other banks relating to FX spreads? . . . A. No.”); DE 23 (█████ Tr.) 187:6–10 (“Q During the relevant period, did you ever enter into any sort of agreement with any FX trader at any other dealer bank relating to FX spreads? A No.”). Similarly, both █████ and █████ testified that they did not participate in a global conspiracy to manipulate FX spreads. *See* DE 17 (█████ Tr.) 282:20–285:13; DE 31 (█████ Tr.) 218:21–25.

215. FX traders from competing Defendant banks had a “gentlemen’s agreement” to not deliberately trade to each other’s disadvantage, to share information openly and honestly, and where possible help each other avoid losses and make profit. *See* DE 17, █████ Tr. 194:7-21, 286:1-287:21 (stating he had such a “gentlemen’s agreement” that was not written but put into practice through day-to-day conduct and that the expectations of group members “were made clear”); PE 3, █████ Dep. at 49:5-50:13 (testifying that traders “stick together” by working as a team to protect each other and help each other make as much money as possible).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 215 offers no support for the stated proposition that all FX traders had a “gentlemen’s agreement” of any kind. █████ testified that he inferred a “gentlemen’s agreement” with other members of The Cartel chat room, which was limited to █████ (formerly of UBS, Barclays, and Standard Chartered), █████

[REDACTED] (formerly of Barclays), [REDACTED] (formerly of RBS and JPMorgan), and [REDACTED] (formerly of Citi). *See* Credit Suisse 56.1 Statement ¶¶ 126, 130, 132. [REDACTED] denies that such an agreement existed and [REDACTED], and [REDACTED] were acquitted when tried by the Department of Justice (“DOJ”) for entering into the alleged agreement. *See* DE 86 (Oct. 2019 Witness Statement of [REDACTED] (CITI-FX-CIVIL\_00615560)) at 643 (“Despite the fact that the [UK] SFO had concluded that my conduct did not constitute a criminal offence in the UK, I chose to waive extradition to fight the baseless charges. I could have resisted extradition and been safe in the UK forever, but I was so convinced of the facts, the law and my innocence that I risked 10 years in a US prison . . . to prove once and for all there was absolutely no basis for me to ever had to face these charges. Fortunately I was proved right and a jury unanimously acquitted my co-defendants and me in just over three hours.”); Credit Suisse 56.1 Statement ¶¶ 124–34. Furthermore, even if the alleged “gentlemen’s agreement” existed, [REDACTED] testified that traders from banks other than UBS, Standard Chartered, Barclays, RBS, JPMorgan, and Citi did not participate in The Cartel chat room and were not part of the “gentlemen’s agreement.” *Id.* ¶¶ 124–34. [REDACTED] did not testify to entering into a “gentlemen’s agreement” with other FX traders, but testified to participating in a limited conspiracy with certain other traders which served as the basis for his DOJ guilty plea. [REDACTED] testified that this conspiracy was limited to the four participants of the ZAR Chat chat room – [REDACTED] (formerly of Barclays and BNP), [REDACTED] (formerly of JPMorgan), [REDACTED] (formerly of Citi), and [REDACTED] (formerly of Barclays); did not involve Credit Suisse; and was limited to the Central and Eastern European, Middle Eastern, and African currency pairs. *See* Credit Suisse 56.1 Statement ¶¶ 138–141. [REDACTED] denies that this agreement existed and contested its existence at his criminal trial. *See* Oct. 31, 2019 *Aiyer* Trial Tr. (ECF No. 154,



Docket No. 18-cr-0333) at 61–62 (█████ counsel states that “there was no agreement to fix prices or rig bids. It wasn’t written. It wasn’t spoken. It just didn’t exist. Because there was no written or spoken agreement, the government is going to try to point you to a variety of trading activities and discussions and ask you to infer the existence of an illegal agreement to fix prices. . . . There was simply no agreement among the rand chatroom members to fix prices for their customers. . . . The evidence will show you that there was no agreement not to compete.”); Nov. 18, 2019 Mem. of Law in Supp. of Def.’s Rule 29 Mot. (ECF No. 147, Docket No. 18-cr-0333) at 10 (█████ counsel states that “[b]ased on the evidence presented at trial, no rational juror could find that, by way of this alleged conspiracy, █████ entered into any agreement consisting of a conscious commitment to a common scheme to fix prices and rig bids.”). █████ further testified that he did not participate in the conspiracy related to The Cartel chat room. *See* DE 31 (█████ Tr.) 217:18–218:14.

█████ and █████ also denied participating in a global conspiracy among the 16 Defendant banks to manipulate FX prices in 52 currency pairs. *See* Credit Suisse 56.1 Statement ¶¶ 134, 141.

216. The agreement described in the preceding paragraph was based on trust, facilitated the exchange of spreads, and was generally honored by the chat room participants. *See* DE 17, █████ Tr. at 195:6-197:9; PE 9, █████ Dep. at 82:23-84:10 (testifying that trust was important in terms of pricing contributions in chat rooms); PE 3, █████ Dep. at 179:14-180:12 (Q: Would you have considered that to be wrong, to tell somebody what to show and then deal inside of them? A: Yes. Q: Why is that? A: Because you’re friends, and you would be kind of taking advantage of the information. Q: And if you did that too often, trust would break down; right? A: Correct. Q: And fair to say the coin of the realm in these chatrooms among the traders

was trust? A: Correct. Q: Without trust, you can't share information and help each other out; is that right, [REDACTED]? A: Correct.).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 216 offers no support for the stated proposition that all FX traders had a "gentlemen's agreement" of any kind. [REDACTED] testified that he inferred a "gentlemen's agreement" with other members of The Cartel chat room whom he trusted more than other traders in the FX markets. *See* Credit Suisse 56.1 Statement ¶ 130; DE 78 ([REDACTED] Tr.) 193:19–194:1, 195:6–17, 274:13–16 ("I think the level of trust, the amount of information, the amount of coordination in [The Cartel] chat was far above any other chat I had."). Credit Suisse disputes that the "gentlemen's agreement" existed between members of The Cartel chat room or that it "facilitated the exchange of spreads." *See* responses to ¶¶ 195, 204, 215 *supra*. Credit Suisse also disputes that, to the extent it existed at all, the "gentlemen's agreement" was "generally honored." *See* DE 17 ([REDACTED] Tr.) 298:16–21 ("Q Thinking about all the chat rooms that you participated in over the years, fair to say that some of information that you and others shared in those chat rooms wasn't 100 percent truthful and honest? A Occasionally, sometimes."). Credit Suisse further disputes Paragraph 216 to the extent it implies that [REDACTED] or [REDACTED] participated in the "gentlemen's agreement" perceived by [REDACTED]. [REDACTED] testified that the agreement he inferred was limited to the participants of The Cartel chat room, *see* response to ¶ 215 *supra*, and both [REDACTED] and [REDACTED] testified that they did not participate in the alleged conspiracy related to The Cartel chat room. *See* DE 31 ([REDACTED] Tr.) 217:18–218:14; DE 32 ([REDACTED] Tr.) 152:23–154:6, 155:12–18.

217. Traders working for competitor banks helped each other with their trading in chat rooms to maximize profitability. *See, e.g.*, PE 6, [REDACTED] Dep. at 103:5-9 (Q: To be clear, you are helping each other out, but you are competitors, correct? A: I didn't think about that at the time,

but now -- we are competitors and we were helping each other out, yes.), 178:9-21 (testifying that chat participants helped each other with spread to show customers); 243:13-16 (testifying that the conspiracy allowed the banks to “mak[e] profits and avoid[] losses” by cooperating with competitors); PE 3, ██████ Dep. at 236:13-25 (Q: Now, you coordinated with spreads with your competitors in chatrooms because you wanted to make sure you were on the same page – close to being on the same page as they were, correct, sir? A: Correct. Q: And in doing so, you worked together hopefully to make more money or prevent each of you from losing money correct, sir? A: Correct.).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 217 offers no support for the stated proposition that all FX traders working for competitor banks helped each other with their trading in chat rooms to maximize profitability. ██████ and ██████ testified to limited agreements to help other traders in The Cartel and ZAR Chat chat rooms, which did not include traders from most of the Defendants and never included traders from Credit Suisse. *See* Credit Suisse 56.1 Statement ¶¶ 103–104. Furthermore, FX traders denied entering into agreements relating to FX with other FX traders and ██████ denied entering into an agreement with ██████. *See* Credit Suisse 56.1 Statement ¶¶ 89–102; response to ¶ 215 *supra*.

218. It was expected that chat room participants would provide spreads to the group participants. *See* PE 6, ██████ Dep. at 193:7-16 (agreeing that to get information in the chat rooms, a trader had to give information); PE 7, Melvin Dep. at 81:11-23 (testifying that “for the chat rooms to be useful they have to have useful sharing of information, not just one-way sharing of information. Otherwise, you should dissolve the chat”), 122:11-25 (testifying that it’s in traders’

interest to respond to queries in chatrooms, because they will have a query in the future), 124:22-125:19 (testifying that “the information needs to be useful if someone is going to continue in the chat, that if people ask you for your view of the market, you need to give them a useful answer”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 218 offers no support for the stated proposition that all chat room participants would provide spreads to the group participants. Credit Suisse objects that “provide spreads” is vague and undefined. *See* response to ¶ 195 *supra* (discussing different types of discussions regarding spreads). FX traders also denied entering into agreements relating to FX with other FX traders and [REDACTED] denied entering into an agreement with [REDACTED]. *See* Credit Suisse 56.1 Statement ¶¶ 89–102; response ¶ 215 *supra*. Even if [REDACTED] so-called “gentlemen’s agreement” existed, Credit Suisse disputes that it was expected that chat room participants would provide spreads to the group participants. Plaintiffs’ citations relate to the sharing of information generally, not the sharing of spreads. *See* PE 6 ([REDACTED] Tr.) 193:7–16; PE 7 (Melvin Tr.) 81:11–23, 122:11–25, 124:22–125:19; *see also* Credit Suisse 56.1 Statement ¶¶ 89–94, 96–97, 99, 101–102 (FX traders denying that they entered into any agreement regarding FX spreads).

219. Chat participants understood that the “gentlemen’s agreement” would not continue if information shared was used against chat participants. *See* PE 6-1, Gardiner Trial Testimony in *Usher et al.* at 396:3-11 (Q: If you had, in fact, taken advantage of the information that Usher was giving you here in the chat, did you have any expectation as to whether this chat relationship would continue? A: I would say it’s pretty unlikely. If two traders are talking to each other and it’s pretty obvious that, you know, that they’re taking advantage of each other’s situations and causing each other losses, then I can’t see that it would last very long.); PE 7, Melvin Dep. at

78:3-13 (testing that if traders want to get information in the future and have a mutual gain, they'd better not take advantage of that trust relationship, or it will end.).

**DEFENDANTS' RESPONSE:** Disputed in part. Credit Suisse objects that the concept of using information against chat participants is undefined and vague. Paragraph 219 offers no support for the stated propositions that all FX traders had a "gentlemen's agreement" of any kind or that information shared in chatrooms would not continue if "information shared was used against chat participants." *See, e.g.,* response to ¶ 215 *supra* ("gentlemen's agreement" did not exist and involved only four traders even if it existed); response to ¶ 216 *supra* (traders in The Cartel chat room were not entirely truthful with one another).

220. The FX traders exchanged spreads to get on the same page with each other as to spreads to show their customers. *See* PE 6, [REDACTED] Dep. 178:22-179:5 (Q: Fair to say, as a result of this conduct, you were getting on the same page with your competitors as to what spreads to show? A: Spreads that we would show, yes. We would be on the same page, same ballpark. Q: And these were spreads that were shown to customers, correct? A: Would very, very likely would be shown to a wide variety of customers, yes.), 324:2-7; PE 32, [REDACTED] Dep. at 198:12-22 (testifying that he used the spreads shared with him by competitors in his own pricing to customers); 294:10–20 (testifying he aided Credit Suisse's competitors on spreads to quote to customers); PE 1-286 ([REDACTED] (Credit Suisse) wrote, "just both quote them wide and same that way they [customers] have no tight price." [REDACTED] (Standard Chartered) replied, "agreed"); PE 14, [REDACTED] Ex. 3, Cummins Testimony in *Aiyer* Tr. 11/01/19 165:7-15 (testifying that "a client would call up and ask a number of us in the chat room for the same thing all at the same time, so we would convey to the others what we were being asked, as far as what currency and what size, and then indicate what price we were showing to the client."); PE 1-146 (08/13/09 chat discussing

proper spread of EUR/AUD and AUD/USD, and sharing this information “just so we are all on the same page”); PE 1-8 (07/11/07 chat discussing spreads in GBP/USD); PE 1-3 (03/07/07 chat in which traders say, “we should all agree on the same spreads”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 220 offers no support for the stated proposition that all FX traders exchanged spreads to get on the same page with each other as to spreads to show their customers. FX traders denied entering into agreements relating to FX with other FX traders. *See* Credit Suisse 56.1 Statement ¶¶ 89–102; *see also* responses to ¶¶ 201, 204, 214–215 *supra*. Plaintiffs also misconstrue the meaning of showing the “right spread,” as this type of information exchange was not intended “get on the same page with each other as to spreads to show their customers.” For example, former Citi FX trader [REDACTED] testified that “[t]he trader’s motivation would be having the desire to show the correct price to their customer” where the correct price “means an aggressive price” or a “bid-offer spread that is attractive . . . [t]o your customer.” *See* DE 32 ([REDACTED] Tr.) 101:15–102:5. He also testified that “a trader should be trying to show the tightest spread that he or she feels comfortable with.” *Id.* at 102:17–19. Former FX trader [REDACTED] testified that he discussed spreads “to know what the best spreads were from other traders that I respected and trusted” so that “I knew I would be . . . competitive. If a customer called me I wasn’t going to show a price that was too wide so that the customer wouldn’t deal with me.” DE 78 ([REDACTED] Tr.) 302:8–11. Plaintiffs also mischaracterize the cited portions of [REDACTED]’s deposition testimony and PE 1-286. While [REDACTED] testified that he used the spreads shared with him by competitors in his own pricing to customers, he repeatedly emphasized that it was merely one data point among many, and was “probably the smallest part.” DE 18 ([REDACTED] Tr.) 198:18–22, 200:3–14, 201:16–18.

221. When discussing spreads to show customers, traders at competing banks wrote, “what we showing,” “having polled the crowd,” “consensus is,” and “we always check spreads,” what’s the “right” spread, and what’s the “correct” spreads. *See* PE 1-307 (06/20/11 chat with [REDACTED] (RBS) asking [REDACTED] (Barclays), [REDACTED] (UBS), [REDACTED] (BTMU), and [REDACTED] (Barclays) “usdjpy 500 and yard what we showing boys?”); PE 1-59 (10/20/08 chat with [REDACTED] (Barclays) and [REDACTED] (BNP) discussing the spread in 100 million USD/CAD. [REDACTED] then wrote “cool yeah having polled the crowd most have said 20-30 area.”); PE 1-55 (10/16/08 chat with [REDACTED] (Barclays) telling [REDACTED] (Citi) spread in 100 million USD/JPY “12-15 [pips] is consensus.”); PE 1-187 (03/26/10 chat discussing spread in GBP/USD with [REDACTED] (UBS), [REDACTED] (Barclays) wrote “its only cos we on chat - we always check spreads.”); PE 1-447 (04/30/13 chat with [REDACTED] (Credit Suisse), [REDACTED] (Standard Chartered), and [REDACTED] (BNP Paribas) discussing the “right” spread in 200 million EUR/USD); PE 1-386 (03/08/12 chat where [REDACTED] (Citi) asks whether a 12-pip spread in 200 million AUD is “correct,” and [REDACTED] (Credit Suisse) responded that the spread should be a “bit wider. 14.”).

**DEFENDANTS’ RESPONSE:** Disputed in part. The evidence cited in Paragraph 221 does not support the proposition that all FX traders at competing banks “discuss[ed] spreads to show customers.” *See* response to ¶ 214 *supra* (spreads discussed in chat rooms were not necessarily spreads shown to customers); *see also* responses to ¶¶ 193, 201, 220 *supra*. Furthermore, Credit Suisse disputes Paragraph 221 to the extent it suggests that traders entered into agreements relating to FX with other traders. *See* Credit Suisse 56.1 Statement ¶¶ 89–102.

222. On November 16, 2019, [REDACTED] (Morgan Stanley) wrote to [REDACTED] (HSBC) in a chat, “all seriousness tho can never be a bad thing colluding spreads ....” *See* PE 1-168 (11/16/09 chat).

**DEFENDANTS' RESPONSE:** Disputed in part. The November 16, 2009 chat is quoted accurately. Credit Suisse disputes Paragraph 222 to the extent it suggests that [REDACTED] and [REDACTED] were “colluding” on spreads or that FX traders generally agreed on spreads. This chat room does not contain any traders from the other 14 Defendant banks, including Credit Suisse, and FX traders denied entering into agreements relating to FX with other FX traders. *See* Credit Suisse 56.1 Statement ¶¶ 89–102; DE 60 (HBEU-FXLITIG-00035363) at 363–364.

223. [REDACTED], a Citibank trader who pleaded guilty for his involvement in the conspiracy, testified that he engaged in conspiratorial behavior in the “Old Gits” chat room with Credit Suisse trader [REDACTED], along with traders from Barclays, BNP, Bank of America, HSBC, and others. *See* PE 9, [REDACTED] Dep. at 173:23-174:16.

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 223 offers no support for the proposition that [REDACTED] pleaded guilty to “the conspiracy” alleged in this litigation. Furthermore, [REDACTED] did not testify that he engaged in conspiratorial behavior in the “Old Gits” chat room. He testified that he engaged in “similar misbehavior in the Old Gits chat room” as he did in ZAR Chat, DE 87 (Jan. 15, 2021 Dep. of [REDACTED]) 173:16–174:16, but that certain behavior in ZAR Chat was “unique” and that the conspiracy he pleaded guilty to only pertained to his conduct in ZAR Chat. *Id.* at 129:11–130:5, 138:9–18. [REDACTED] also explicitly testified that he did *not* engage in a global conspiracy among the 16 Defendant banks to manipulate prices in 52 currency pairs, as Plaintiffs allege in this litigation. CS 56.1 Statement ¶ 105. Furthermore, [REDACTED] denied engaging in conspiratorial behavior in the Old Gits chat room. DE 72 ([REDACTED] Tr.) 30:6–13.

224. FX traders from competing Defendant banks suggested that spreads shown to customers should be widened. *See, e.g.*, PE 1-105 (02/25/09 chat with [REDACTED] suggesting wider



spreads in EUR/JPY than suggested by [REDACTED]; PE 1-158 (09/29/09 chat with [REDACTED] suggesting that the spread in 50 million AUD/NZD should be no narrower than 20 pips); PE 1-173 (01/04/10 chat with [REDACTED] suggesting wider spread); PE 1-338 (10/07/11 chat with [REDACTED] asking whether spread in 75 million EUR/USD should be 4 pips and both [REDACTED] and [REDACTED] instead suggest 5 pips); PE 1-333 (09/22/11 chat with [REDACTED] suggesting 15 pips in 25 million USD/TRY is “too tight” and the right spread should be 20 pips); PE 1-5 (06/06/07 chat in which traders discuss a spread in USD/JPY and say “25 is good ... id show 30 though”); PE 1-43 (09/05/08 chat discussing “massively widening” spreads in USD/CAD and NZD/USD); PE 1-97 (01/28/09 chat discussing spreads in AUD/NZD where [REDACTED] says, “If we can show wider and we all do it we all benefit” and also says “If one cok shows a silly tight spread then clients think that’s normla”); PE 1-98 (01/29/09 chat with [REDACTED] suggesting proposed spread was “far too tight”); PE 1-18 (01/04/08 chat discussing a spread matrix for AUD/USD and NZD/USD and [REDACTED] suggesting that [REDACTED] “widen them all out”); PE 1-328 (09/14/11 Dream Team chat with [REDACTED] suggesting a 7-pip spread in 75 million GBP/USD but [REDACTED] responding, “I wud say 7 too tight,” and [REDACTED] replying, “8-10 agreed”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 224 offers no support for the proposition that all FX traders from competing Defendant banks suggested that spreads shown to customers should be widened. The evidence cited in Paragraph 224 does not demonstrate that traders at competing banks discussed “spreads shown to customers.” *See* response to ¶ 214 *supra* (spread discussed in chat rooms were not necessarily spreads shown to customers). Furthermore, FX traders suggested that spreads should be *narrowed* in chat rooms with other FX traders. *See* Credit Suisse 56.1 Statement ¶¶ 148–49.

225. FX traders from competing Defendant banks widened spreads shown to customers as a result of their chat room discussions. *See, e.g.*, PE 1-95 (01/23/09 chat discussing spread in 50 million NZD/USD with [REDACTED] stating that he would have made 15 pips but will widen the spreads after talking with other chat room participants); PE 1-371 (01/25/12 chat with [REDACTED] telling [REDACTED] that his 100 pips in 25 million USD/ZAR is “too tight” and they were all quoting 125 pips therefore “custys have to take it” and [REDACTED] responds “its 125 from now”); PE 1-131 (06/04/09 chat discussing with [REDACTED] agreeing to wider spread in 500 million USD/CAD suggested by other traders); PE 1-338 (10/07/11 chat, in which [REDACTED] had suggested a spread of 4 for 75 EUR/USD and acquiesces when [REDACTED] and [REDACTED] tell him to quote 5 instead); PE 1-289 (03/31/10 chat agreeing on 6-pip spread in 35 million NZD/USD after 5-pip spread deemed too tight); PE 1-412 (08/09/12 [REDACTED] chat agreeing on 7-pip spread in 50 million EUR/JPY after 5-pip spread rejected as too tight); PE 1-212 (07/12/10 chat with [REDACTED] of Credit Suisse noting, “i think mine were too tight. on this chart. widening now.”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 225 offers no support for the proposition that all FX traders from competing Defendant banks widened spreads shown to customers as a result of their chat room discussions. Plaintiffs do not present evidence that FX traders from Defendant banks actually widened the spreads shown to customers after the discussions cited in Paragraph 225. The chat room transcripts Plaintiffs rely on in Paragraph 225 do not support this proposition. *See* PE 1-95 (no indication [REDACTED] quoted a wider spread after discussion with other chat room participants); PE 1-371 (no indication that [REDACTED] quoted 125 pips in 25 million USD/ZAR after [REDACTED] made the suggestion); PE 1-131 (no indication [REDACTED] showed a wider spread in USD/CAD); PE 1-338 (no indication [REDACTED] in fact acquiesced); PE 1-189 (no indication chat participants quoted 6 pips in 35 million NZD/USD); PE 1-411 (no

indication chat participants showed 7 pips and [REDACTED] indicates that he already quoted 5 pips to the customer); PE 1-212 (spread discussion was in the context of a spread matrix and not an active customer order). Furthermore, FX traders also discussed *narrowing* their spreads, *see* response to ¶ 224 *supra*, and spreads discussed in chat rooms were not necessarily the spreads shown to customers, *see* response to ¶ 214 *supra*.

226. On August 9, 2012, [REDACTED] from Credit Suisse suggested to her P-Chat participants from competing banks that they all agree to widen spreads because they had the power to do so, and the group agreed. *See* PE 1-411 (08/09/12 [REDACTED] chat with [REDACTED] noting group could “all decide to make it wider. we have the power.”).

**DEFENDANTS’ RESPONSE:** Disputed in part. [REDACTED] testified that she made the quoted comment in jest because the chat room’s participants were employed by “small banks with very small market share,” so they did not, in fact, have the power to affect spreads in their area. DE 88 (Nov. 27, 2018 Dep. of [REDACTED] (“[REDACTED] Tr.”)) 244:10–246:9.

227. On January 18, 2012, [REDACTED] from BNP Paribas told [REDACTED] at Barclays that traders at competing banks agreed that in New York time zone, the price in 50 million USD/ZAR would be 250 pips and 125 pips in 20 million USD/ZAR, and stated “we going to try and get this wider.” [REDACTED] further suggested that if all the competing banks were consistent with the agreed upon spreads, customers would have to accept it. *See* PE 1-367.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 227 offers no support for the proposition that all Defendants agreed upon spreads or that all Defendants agreed on spreads in 50 million USD/ZAR or 20 million USD/ZAR. The reference to “we all agreed” on a spread of 250 for 50 million USD/ZAR is only to three traders ([REDACTED] [REDACTED]), not all FX traders at the Defendant banks. *See* DE 89 (Dec. 16, 2020 Dep. of [REDACTED]).

█████ (“█████ Tr.”)) 97:17–23. Similarly, ██████ statement that “if we all consistent they have to accept it” is also not a reference to all FX traders or all Defendants, but instead refers only to the three traders present in the chat room at the time. *Id.* at 101:4–13. *See also* response to ¶ 215 *supra* (█████ denied that any conspiracy existed).

228. On March 7, 2012, ██████ from BNP Paribas complained that his customers pushed him to quote narrow spreads and suggested to his P-Chat participants from competing banks that they all fix the spreads at a wider level therefore customers would have no choice but to accept. *See* PE 1-385; PE 3, ██████ Dep. at 114:7-11 (testifying that the traders knew “[t]hat if we all set our spreads the same, that the customers are going to have a lot less options, and they’ll have to, you know, potentially deal on those wider spreads”).

**DEFENDANTS’ RESPONSE:** Disputed in part. As Paragraph 228 recognizes, customers have the ability to negotiate with dealer banks to narrow spreads. *See* Credit Suisse 56.1 Statement ¶ 75; DE 48 (CS-FXLIT-12108538) at 555 (June 2012 chat in which a client asks Credit Suisse to narrow its spread in 15 million EUR/NOK, Credit Suisse provides a new quote with a narrowed spread, and the client then sells EUR); DE 62 (CITI-FX-CIVIL\_00554868) at 869–870 (February 2011 interbank chat in which Trader 1 writes “what did u show in the 250 eurjpy”; Trader 2 replies: “hahahah / 32”; Trader 1 writes : “hahah / well”; Trader 2 writes: “luckily wnet back and said / im too wide . . . show him 25”; Trader 1 responds: “the right spread / is the widest they deal on”); DE 22 (█████ Tr.) 260:13–21 (“Q. How common was it that a customer would want to negotiate on spreads? Can you estimate that? A. I couldn’t put a number on it. It was very common. Q. And did customers who did negotiate on spreads sometimes succeed in getting the bank to narrow spreads? A. Pretty much always, yes.”). Credit Suisse disputes Paragraph 228 to the extent it implies that traders agreed to “fix spreads at a wider level,” and disputes that the

discussion related to any trader or currency beyond the particular chat room at issue. *See also* response to ¶ 215 *supra* (██████ denied that a conspiracy in the Rand Room existed). Moreover, immediately following ██████'s statements, ██████ disagrees with ██████ about the spread in 25 million USD/ZAR and suggests a *narrower* spread. *See* Credit Suisse 56.1 Statement ¶ 138; PE 1-385 (██████ states "25 in ny is 125," ██████ responds "maybe 100 in \$25," and ██████ writes "ok / so that is fair").

229. Discussions with traders from competitors about spreads to show customers influenced spreads shown to customers. *See* PE 32, ██████ Dep. at 198:12–199:20 (testifying that he would ask competitors what spread they were charging to customers and use it as a data point in his pricing); PE 33, ██████ Dep. at 155:4-13 (testifying that he "would definitely use" spread given by competing FX traders "to figure out what spread I was going to make"); ██████ Dep. at 84:19-86:1 (testifying that ██████'s response of 15 pips in 100 million when asked about the right spread in 50 million EUR/CHF in ██████ Ex. 9 "would have been part of my decision making process"); PE 1-79 (12/18/08 chat with ██████ quoted customer 150 pips in 5 million USD/ZAR as suggested by ██████); PE 1-58 (10/20/08 chat with ██████ stating "with what you told me, I will make 25 points wide now"); PE 1-430 (11/07/12 chat discussing spreads in 160 million USD/JPY with ██████ then conducting a transaction with a real money client for 160 million USD/JPY).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 229 offers no support for the stated proposition that all discussions with traders from competitors about spreads to show customers influenced spreads shown to customers. Other traders testified that discussions about spreads in chat rooms did not influence the spreads they showed to customers. *See* DE 74 (██████ Tr.) 317:21–25 ("The spreads . . . the information that was given was just a general information, and then it

was up to myself and the salesperson what spread was actually shown.”); DE 8 (██████████ Tr.) 105:5–10 (“Q. If you learned that a participant in a chat room in which you were a participant was quoting a particular spread to a customer, would you ever quote a narrower spread than the one that you had seen in the chat room? A. Yes.”); DE 90 (Jan. 14, 2021 ██████████) 182:18–183:18 (“[Q.] And so again, at this time, a customer who went to either of these banks . . . looking for a price for 150 million Euro/U.S. dollar, is going to get the same answer, correct? They’re both going to be quoted a spread of 7 to 8 basis points? A. I don’t agree with that. Q. Why not? You both just expressed that your opinion for that currency pair in that denomination should be 7 to 8 basis points. A. But again, I don’t know if he had to make a price how he would act at that time with his bank. And I don’t know if I was asked that price at that day at that time by a certain customer, if that’s a spread that I would make. Q. Then what’s the purpose of telling each other what you thought the spread ought to be in these chats? A. Just to get an overall opinion of what they think the spread is. Again, it’s just an opinion.”); DE 32 (██████████ Tr.) 103:16–22 (“In asking for a reality check on a price, the trader . . . is asking the market what is the price for X. What is then reflected to the customer may or may not be what the trader receives from the market from other traders.”); DE 36 (██████████ Tr.) 75:14–80:8 (“[Q.] ██████████ says: ‘how wide 75 eur’ . . . . at 10:08:21 ██████████ says: ‘4?’ . . . . ██████████ then responds at 10:08:32 with: ‘i would try 5’ . . . . At 10:09:20 ██████████ says ‘ok’ . . . . Would you expect him to quote a spread of 5 based on your conversation? . . . [A.] No, because he may just say ‘ok’ and then quote a client 4 or even 3 points.”). Furthermore, Plaintiffs’ evidence does not demonstrate that the spreads discussed in the cited chat rooms were actually shown to customers. ██████████ testified that the chat excerpted in PE 1-430 did not indicate that she showed a spread discussed in 160 million USD/JPY to a client: “Q. Looking at this transcript, this is now an example of you having a transaction to do

with a customer of 160 million dollar-yen, then polling these other FX dealers for what the . . . spread is and then making that transaction? . . . A. I wouldn't characterise that as how events went." DE 88 (██████████ Tr.) 226:11–25; *see also id.* at 225:3–9 ("Q. And [the chat participants] all have provided you their view as to what that spread should be. Correct? . . . A. They will provide me their opinions on liquidity expressed as a spread.")). Plaintiffs similarly misconstrue ██████████'s testimony. *See* DE 18 (██████████ Tr.) 201:16–18 (testifying that spread information from chat participants was merely one of many data points he used in determining prices and was "probably the smallest part"); *see also id.* at 198:18–22, 200:3–14.

230. A spread grid (a/k/a spread matrix) is the FX market's version of a price list. It lists various currency pairs, often the G-10 currencies, along one axis and notional amounts, e.g., 50, 100, 200 million, along another axis. *See* PE 35, CS-FXLIT-05209291 (Credit Suisse spread matrix to ██████████). The grid then lists the spread the dealer is willing to show for that currency pair and amount in normal market conditions. *See* DE 1, Robin Report at ¶46.

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 230 offers no support for the stated proposition that a spread grid (a/k/a spread matrix) is the FX market's version of a price list. A spread matrix is also sometimes referred to as a spread grid; some versions of spread matrices reflect the physical description set forth in Paragraph 230. Credit Suisse disputes the characterization of any FX spread matrix as a "price list," *see* response to ¶ 185 *supra*, and this paragraph is unsupported to the extent it implies that a spread matrix reflects spreads that a market-maker must show a client. *See* DE 1 (Robin Report) ¶ 46 ("Anticipated or indicative spreads are also sometimes communicated to customers in the form of 'spread matrices' or 'spread grids'. These documents will be typically prepared upon a customer's request or provided to the customer on a scheduled basis and allows them to determine what spread, in normal market conditions, a

dealer bank would anticipate quoting in a specified quantity of a specified currency pair.”); DE 91 (Feb. 27, 2020 Dep. of Eric Robin) 194:22–195:10 (“A spread [matrix] is essentially a document, which the bank will produce to the request of the client, showing for certain currency pair and certain amounts the . . . target spread that the bank is going to try to procure to the client. So this is a pure bilateral exercise between one particular client and the bank. And the result of that discussion and the result of that negotiation is effectively a spread matrix.”); *id.* at 216:8–24 (“Q. Customers who had obtained spread matrices were still required to call if they wanted to get a two-way price in a trade, in a particular pair FX spot, did they not? A. Oh yes, yes. They would need to inquire a two-way price either by voice or electronically, yes. Q. And why is that? A. Well, I think I expressed earlier that the spread matrix would not be contractual arrangement between the bank and the client. But it would provide to the client an indication of what they should be expecting in terms of spreads for a given currency and given amount.”); *see also* response to ¶ 231 *infra*.

231. While spread matrices were not binding contractual prices, dealers stood by them the vast majority of the time. Customers expected dealers to trade on spreads listed in the spread matrices so long as market conditions were normal. *See* PE 15, [REDACTED] Ex. 20, CITI-FX-CIV\_00409524 at 9524 (07/07/10 internal Citi email asking traders to fill in the spread matrix with “spreads that will hold during normal market conditions” and suggesting traders should be “prepared to stick to” the spreads in the spread matrix “for the best part of the time”); PE 36, BNP0073013 at 3015 (04/03/13 email from [REDACTED] of [REDACTED] to BNP requesting spread matrix and stating, “We ask you to complete the spreads with a view to where current market liquidity is and with the aim that you **do not widen unless market conditions are extreme** (we expect you to hold these spreads at least 90% of the time).”) (emphasis in original).



**DEFENDANTS' RESPONSE:** Disputed in part. The evidence Plaintiffs set forth in Paragraph 231 does not support the proposition that dealers stood by indicative spreads offered in spread matrices the vast majority of the time or that all customers expected all dealers to trade on spreads listed in spread matrices so long as market conditions were normal. *See* DE 75 (██████ Tr.) 190:11–15 (testifying that spread matrices “were always only an indication”); DE 21 (██████ Tr.) 199:20–200:4 (“[Q.] Did spread matrices serve as guaranteed prices that customers could trade on? A. No. No. They served as guidelines for liquidity in typical market times. . . . They had nothing to do with prices that clients could actually trade on.”); DE 89 (██████ Tr.) 148:17–25 (“Q. Were traders expected to stick with their spread matrices so long as normal market conditions prevail? . . . A. No. Q. What guidance, if any, did spread matrices offer? A. A rough guidance.”). Furthermore, as discussed in response to Paragraph 230 *supra*, spread matrices showed possible spreads for specific currency pairs in specific notional amounts during normal market conditions. FX markets were frequently not “normal.” *See* DE 92 (Dec. 15, 2020 Dep. of ██████████) 43:9–44:8 (“I think [spread matrices] were to be reflective of current market conditions . . . during ’09, there was no such thing as normal market condition . . . . From memory, a couple of them that I saw across the topic would say this is a guide to the spreads that we could show during . . . current market conditions but subject to change at any point. A disclaimer, so to speak . . . . I think they were a guide for not a normal market, but they were a guide for current market conditions . . . . They sometimes could be tighter. They sometimes could be wider.”). Also, many clients did not request or receive spread matrices. *See id.* 232:19–20 (“Q. Did all customers receive spread matrices? A. No.”); DE 79 (██████ Tr.) 71:14–18 (“[Q.] Could you explain what a spread matrix is? A. Certain customers used to ask for indicative pricing matrixes for currencies within G10 and in varying sizes.”).

232. Customers requested spread grids from dealers on a regular basis (typically updated quarterly) to compare spreads between dealers. *See* PE 7, Melvin Dep at 96:7-11 (testifying that “[s]pread matrices would typically be updated once a quarter and would represent indicative pricing that in a normal market with, quote, ‘normal liquidity’ might be quoted”); PE 16, CITI-FX-CIVIL\_00290528 (10/09/12 email from [REDACTED] noting that London spreads for [REDACTED] spread matrix had not changed in three months).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 232 offers no support for the stated proposition that all customers requested spread grids from dealers on a regular basis to compare spreads between dealers. Some customers requested spread grids or spread matrices from dealers, and some did so on a regular basis. Credit Suisse disputes that all customers requested or received spread matrices on a regular basis. *See* response to ¶ 231 *supra*.

233. Rather than provide their customers with their own view of what spreads should be, the conspirators’ traders agreed with each other on the spreads to show in their respective price lists. *See, e.g.*, PE 1-330 (09/20/11 chat with [REDACTED] (Goldman Sachs) asking [REDACTED] (Credit Suisse), “what do u think the spread in 200 eurchf is? ... 30? ... normal day.” [REDACTED] explained that he was updating prices “for a sheet.” [REDACTED] agreed that “30 tics” was correct. [REDACTED] then asked whether 10 was the correct spread in 100 USD/CHF. [REDACTED] again agreed, “[Y]eah.”); PE 1-109 (03/10/09 chat with [REDACTED] (Bank of America Merrill Lynch) telling the traders in a chat room that he had to “fill in a spread matrix...for yen aud nzd cad chf.” [REDACTED] (Credit Suisse) replied “same here...fill it in and fax it to me please [REDACTED].” [REDACTED] then typed his fax number into the chat “00 41 44 332 3488 fax cheers.”); PE 1-313 (07/08/11 chat with [REDACTED] (Credit Suisse) and [REDACTED] (Barclays) agreeing on spreads that [REDACTED] inputted into his spread matrix. [REDACTED] asked, “what is the spread in 500 eur usd?” [REDACTED] responded, “20 I reckon ... maybe 18 ... what

were u thinking?” [REDACTED] responded “20.” [REDACTED] responded, “yep it s the right rate mate.” [REDACTED] then wrote, “it for a grid ... u know the drill.”); PE 1-359 (01/05/10 chat where members of The Cartel share prices in their EUR/USD spread matrices. [REDACTED] (UBS): “first sprd matrix of the year ... no idea what to put hahaha ... 4 in a ton gents? anyone? 2 in 50?” [REDACTED] (Barclays): “only the best . . . not everyone.” [REDACTED] (Citi): “ive got 4 in 50 to a fair few ... say 10 ... 3 in 50 ... and 4 in 100 to gd guys ... 5 to rest ... its never ever 2 in 50.”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 233 offers no support for the stated proposition that all of Defendants’ FX traders agreed with each other on the spreads to show in their respective spread grids. FX traders denied entering into agreements relating to FX with other FX traders. *See* Credit Suisse 56.1 Statement ¶¶ 89–102. Also, Defendant banks provided different indicative spreads in the matrices submitted to clients. *See, e.g.,* Credit Suisse 56.1 Statement ¶¶ 171–172 (showing that Defendants Citi and Credit Suisse showed different spreads in different currency pairs in their respective Q2 2012 spread matrices for customer [REDACTED]); DE 53-01 to DE 53-09 (excerpts of BR00072228 and BR00072229, [REDACTED] Spread Compilations, for the relevant quarters, currency pairs, banks, and volumes in the chart set forth in Credit Suisse’s Reply Memorandum of Law in Support of the Credit Suisse Defendants’ Motion for Summary Judgment and in Opposition to Plaintiffs’ Cross-Motion for Summary Judgment at p. 10); DE 56 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]); DE 57 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]); DE 58-01 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]); DE 58-02 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]).

[REDACTED]; DE 58-03 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]  
[REDACTED]); DE 58-04 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]  
[REDACTED]); DE 58-05 (Excerpt of BR00072228, [REDACTED] Spread Compilation) ([REDACTED]  
[REDACTED]); DE 58-06 (Excerpt of BR00072229, [REDACTED] Spread Compilation) ([REDACTED]  
[REDACTED]).

Clients recognized these differences and commented on them. *See, e.g.*, DE 54 (CS-FXLIT-10036473) at 473–474 (May 2007 email chain in which Credit Suisse distributes revised spread matrices with narrowed spreads after an in-person meeting with the customer); DE 55 (UBSCH\_ZINC\_CIV\_000000849) at 849 (January 2008 internal UBS email chain noting that a customer “gave [UBS] spreads he got from his top counterparties” and that UBS “committed to matching the spreads [that the customer] gets elsewhere”); DE 9 (CITI-FX-CIVIL-MS\_00357717) at 717–18, 721 (September 2011 email from [REDACTED] of customer [REDACTED] indicating that there was a “wide differentiation across banks” in the spreads provided on spread matrices including 16 to 22 pips in 200 million EUR/JPY, 17 to 40 pips in 200 million EUR/CHF, 7 to 12 pips in 200 million EUR/USD, and 12 to 18 pips in 200 AUD/USD). Plaintiffs also mischaracterize the evidence they rely on. When asked at deposition about the chat excerpted in PE 1-109, [REDACTED] testified that he understood [REDACTED]’s comment to fax over his spread matrix to be a joke. *See* DE 79 ([REDACTED] Tr.) 71:23–73:16 (“[Q.] [REDACTED] at 6:15:29 says ‘same here’ and then goes on to say ‘fill it in and fax it to me pls mike’. Do you understand him to be asking for the spread matrix that you prepared? A. Yes, and I understand that he’s

joking, because we'd work together previously and we'd have done this function together previously. Q. Why did you think he was joking? A. Because I wouldn't do it. Q. You wouldn't send it to him? A. Absolutely not. . . . **It's my personal impression** of where the market would be" (emphasis added)). Credit Suisse also disputes that spread matrices were "price lists." *See* response to ¶ 230 *supra*.

234. Banks should not coordinate on spreads. *See* PE 10, ██████████ Dep. at 150:23-151:6. **DEFENDANTS' RESPONSE:** Credit Suisse objects that Paragraph 234 states a legal conclusion to which no response is required. To the extent that Paragraph 234 suggests that Defendants coordinated on spreads, the assertion is unsupported by the cited testimony or any other evidence. *See* Credit Suisse 56.1 Statement ¶¶ 89–105.

235. One purpose of sharing spreads with traders at competitor banks was to eliminate competition between banks. *See* PE 9, ██████████ Dep. at 95:24-97:16; DE 32, ██████████ Tr. at 98:20-99:10; PE 14, ██████████ Ex. 3, Cummins Trial Testimony in *Aiyer* at 222:1-6 (A: That was an idea Jason had that, based upon the size of our institutions and trading books, that he felt if we all acted in concert, at the -- that we could kind of dominate the market, that we could make the market go down whenever we wanted to, that we could make the market go up when we wanted to and make a lot of money doing so.).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 235 offers no support for the "purpose" any trader other than ██████████ had for discussing spreads. Traders discussed spreads in chat rooms for a variety of reasons. *See* response to ¶ 195 *supra*. Credit Suisse disputes Paragraph 235 to the extent that it suggests that ██████████ or ██████████ shared spreads with traders at competitor banks as part of an agreement among all Defendants. ██████████ and ██████████ both expressly denied participating in a global conspiracy to manipulate

FX spreads, as did all other FX traders asked at deposition. *See* Credit Suisse 56.1 Statement ¶¶ 89–105, 141.

236. FX traders in multi-bank chat rooms were not acting like true competitors in the market place. *See* PE 6, ██████████ Dep. at 103:5-9 (Q: To be clear, you are helping each other out, but you are competitors, correct? A: I didn’t think about that at the time, but now -- we are competitors and we were helping each other out, yes.); PE 5, ██████████ Ex. 1, Katz Testimony in *Aiyer* Tr. 11/07/19 at 995:8-18 (testifying that the conspiring banks were “supposed to compete. We weren’t.”).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 236 offers no support for the stated proposition that all FX traders in multi-bank chat rooms were not acting like true competitors in the market place. Credit Suisse objects that the term “true competitors” as vague and undefined. Furthermore, Defendants actively competed during the Class Period and often acted at cross-purposes. *See* Credit Suisse 56.1 Statement ¶¶ 142–147. Credit Suisse further disputes Paragraph 236 to the extent it suggests that Defendants conspired to widen spreads. ██████████ and ██████████ denied participating in a global conspiracy to manipulate FX spreads, as did each FX trader asked at deposition who testified substantively. *See* Credit Suisse 56.1 Statement ¶¶ 89–105, 141. Furthermore, the portion of ██████████ testimony that Plaintiffs cite was made in the context of discussing so-called “benchmark manipulation,” not the widening of bid-ask spreads. *See* PE 5 (██████████ testimony in ██████████) 995:12–18 (“You know, as I said, the customer gives up -- **the customer understands that on a fix people are going to be in and out, aggressively buying or selling. They don’t sign up for competitor banks making it easier to let the other counterparty drive it in a way that’s detrimental to the customer and beneficial to the bank.** You know, we’re supposed to compete. We weren’t.” (emphasis added)).

237. Defendants understood that they would not trade against each other. In the context of spreads, that means not undercutting each other's spreads. *See* PE 18, [REDACTED] Dep. at 163:11-22 (testifying that it would be “daft” to ask a competitor for his spread and then use it to undercut him); *see also* PE 1 (Chat Summary citing among other things CS-FXLIT-10020301 describing such behavior as “suicidal”).

**DEFENDANTS' RESPONSE:** Disputed in part. Credit Suisse objects that the term “trade against” is undefined and vague. Paragraph 237 offers no support for the stated proposition that all Defendants understood that they would not trade against each other. FX traders denied entering into agreements relating to FX with other FX traders. *See* Credit Suisse 56.1 Statement ¶¶ 89–102. To the extent certain traders pleaded guilty or admitted to entering into agreements with one another, these agreements were limited in scope to the small number of participants, the relevant currency pairs, and the specific conduct agreed to. *See* Credit Suisse 56.1 Statement ¶¶ 103–05, 125–141. Furthermore, FX traders often undercut one another. *See* DE 8 ([REDACTED] Tr.) 105:5–10 (“Q. If you learned that a participant in a chat room in which you were a participant was quoting a particular spread to a customer, would you ever quote a narrower spread than the one that you had seen in the chat room? A. Yes.”); DE 36 ([REDACTED] Tr.) 80:3–10 (“Q. Would you expect him to quote a spread of 5 based on your conversation? . . . [A.] No, because he may just say ‘ok’ and then quote a client 4 or even 3 points.”). As former Deutsche Bank trader [REDACTED] clarified, he *would* undercut other FX traders' spreads. *See* PE 18 ([REDACTED] Tr.) 163:23–164:8 (“[Q.] [Y]ou didn't want to be a person who called up spot traders of other banks, ask for their view of the spreads and then undercut them, right? . . . A. If I thought that the spread was wrong I would undercut it. Q. But just as a general matter, calling them up, finding out their spreads and undercutting them, you wouldn't do that, would you? . . . A. If I thought it was wrong I absolutely

would do that.”). Credit Suisse Defendants also challenge the general citation to PE 1. *See* response to ¶ 210 *supra*.

238. FX traders understood that their conduct (spreads) in multi-bank chatrooms was inappropriate and constituted price fixing. *See* PE 3, ██████ Dep. at 119:3-16 (Q: Should you be asking your competitors what the right spread is to quote to customers? A: No. Q: Why not? A: We’re supposed to be independent. It can affect the price that I then show to customers who call me. Q: Fair to say here, everybody is working together to come up with the right answer to help you out? A: Yes); PE 1-120 (05/07/09 chat in which ██████ wrote, “ohhh im told we are not allowed to talk about spreads anymore how retarded price fixing but that is compliance I cant do it ... ██████ if u want to call me on reuters on the amount i can show u a price and u know the spread.”); PE 1-272 (02/02/11 chat, in which trader says “fyi ... per the Fed not allowed to ask what you make ... fear of collusion and px fixing” and ██████ responds “yeah is that right? interesting ....” and “wow ... what a narc” and other traders respond “FX police” and “hahahbah DEA”); PE 1-454 (10/30/13 chat with ██████ stating, “this chat is illegal by all accts” and “we shud start a consulting firm for the doos and donts of bbrg chats;” ██████ states, “█████ u never gave me a manual to what can be said on blbg chat you were my first manager to approve me on blbg 2005,” ██████ responds, “have that manual it says let r rip,” and ██████ says, “i always told u ... there is absolutely nothing to be gained by speaking to someone at another bank” and “yet u chose to have 25 chat rooms open every day so let chips fall where tyhey [sic] may. u sleeping ok at night”); PE 10, ██████ Dep at 150:23 - 151:6 (Q: And would you agree that banks shouldn’t coordinate efforts on spreads shown to customers? A: Banks should not coordinate, no. Q: Coordinate on spreads? A: Banks should not coordinate on spreads.); PE 34, ██████ Dep. at



71:23-72:19 (testifying he would not share his spread matrix with a competitor “because it’s wrong” and because the information was proprietary to his employer).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 238 offers no support for the stated proposition that all FX traders understood or believed that their conduct in multi-bank chat rooms was inappropriate or constituted price fixing. Credit Suisse objects that the terms “conduct (spreads)” and “inappropriate” are vague and undefined. Credit Suisse disputes that all conversations regarding spreads in chat rooms constituted price-fixing. Furthermore, FX traders denied participating in a global conspiracy to manipulate FX spreads, and to the extent that certain traders admitted to any agreements, the agreements were far narrower than the scope of the agreement at issue here. *See* Credit Suisse 56.1 Statement ¶¶ 89–105, 141. The evidence set forth in Paragraph 238 does not demonstrate that FX traders knew their conduct in chat rooms was inappropriate. In PE 1-120, [REDACTED], chat quote indicates that he did *not* think there was price fixing happening in the FX markets. He refers to the prohibition on discussing spreads in interbank chats as “retarded,” and later in the conversation says again “how crazy[,] price fixing,” expressing his disbelief that sharing spread information could be considered price fixing. DE 93 (CITI-FX-CIVIL-MS\_00251361) at 363 (“05/07/2009 11:21:18 UTC [REDACTED] . . . posted: how crazy price fixing . . . 05/07/2009 11:22:46 UTC [REDACTED] . . . posted: how u supposed to gauge mkt liquidity”). The other chat excerpts similarly indicate that the FX traders did not think price fixing was happening in the FX markets and felt that the decision to close multibank chats was unnecessary. In PE 1-272, [REDACTED] says “is that right? Interesting...” in response to learning that certain banks are prohibiting spread discussions in interbank chat rooms, indicating that he is surprised that sharing spread information could be considered price fixing. He then jokes “what a narc” and another trader jokes back “fx police.” *Id.* When asked in

deposition about PE 1-454, [REDACTED] stated clearly that this exchange was banter and that his statement that the chat was “illegal” was a joke. *See* DE 69 ([REDACTED] Tr.) 263:2–17 (“[Q.] [Y]ou write at line 17:25, this chat is illegal by all accounts . . . . [REDACTED] laughs, ha, ha, ha . . . . What did you mean by that? A. I’m joking that the three of us are talking to each other in a Bloomberg chat here. Q. And why would you be joking that the chat is illegal? A. I’m not even sure why. But I’m obviously just making fun of whatever’s there.”).

239. In June 2009, [REDACTED] of Goldman Sachs asked [REDACTED], “The question stands: Why do the people that you talk to seem to give you so much clearly improper information week after week, month after month, and year after year? Are they stupid? Are they getting something from you by keeping you engaged? Are they very poorly trying to impress you to get hired? I am working under the assumption that they are getting something or they would not keep doing it, so I believe it is worthwhile our stepping back and making sure that we are not showing our hands in some way that might not be obvious. This is far from the first time that I have raised this issue FYI.” *See* PE 37, [REDACTED] Ex. 8, GS-FX-CIVIL-02911022 at 1023 (06/23/09 email).

**DEFENDANTS’ RESPONSE:** Undisputed.

240. Two dozen traders were given an opportunity to dispute their conspiracy of widening spreads, but instead asserted their Fifth Amendment rights. *See* Burke Decl. at ¶2.

**DEFENDANTS’ RESPONSE:** Disputed in part. Twenty-six traders asserted their Fifth Amendment rights and declined to substantively testify in this matter. Credit Suisse disputes Paragraph 240 to the extent it is offered as evidence that Defendants entered into an agreement to widen spreads in 52 currency pairs. Plaintiffs offer no corroborating evidence to support drawing an adverse inference from certain traders’ invocation of their Fifth Amendment rights. Moreover,

each FX trader who testified substantively and was asked whether he or she participated in a global conspiracy as alleged by Plaintiffs denied the existence of such a conspiracy. *See* Credit Suisse 56.1 Statement ¶¶ 89–105.

241. It is not an FX trader’s practice today to respond to what spreads he would quote with competitors at other banks. *See* PE 38, ██████ Dep. at 84:9-85:15 (discussing ██████ Ex. 12 and testifying that it is not trader’s practice today to respond to what spreads he would quote with competitors at other banks).

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 241 offers no support for the stated proposition that it is not any FX trader’s practice today to respond to what spreads he would quote with competitors at other banks. ██████ testified only as to his own experiences and observations.

242. Unlike bid and ask prices, which can change by the milliseconds on ECNs, spreads exhibit stability. Under normal market conditions, the spreads shown to customers can remain stable for days, weeks, or even months so long as market conditions were normal. *See* DE 1, Robin Report at ¶¶ 24, 39, 47; PE 6, ██████ Dep. at 152:12-25 (Q: How long would spreads stay stable during normal market conditions? A: For as long as they were normal. Q: And so then when liquidity would change, the spread would change to reflect that, correct? A: Yes.); PE 1-377 (02/10/12 Slaaaggggsssss 2 chat with ██████ stating that spreads in 50, 100, 200 million GBP/USD haven’t been changing these days); PE 1-42 (09/03/08 Dream Team chat where ██████ of Merrill Lynch asked, “when did you last do the grid – are spread same as 12 months ago or are you asked more often tha[n] that,” and ██████ of Credit Suisse responded, “we have same spreads as in may 07”).

**DEFENDANTS' RESPONSE:** Disputed in part. Prices can change by the millisecond, including on ECNs. Paragraph 242 offers no support for the stated proposition that all FX spreads “display stability.” Credit Suisse objects that “display stability” is ambiguous and undefined. The record makes clear that FX spreads fluctuated. *See* DE 3 (██████ Tr.) 258:8–9 (testifying that the “markets fluctuate every second” in the spot market); DE 75 (██████ Tr.) 46:25–47:2 (“A discussion on liquidity would be regular, because liquidity was changing at a fast rate.”); DE 24 (██████ Tr.) 69:15–19 (“The spreads were so fluid, certainly about the time period we are talking around, 2007 to 2013, the market was very, excuse me, extremely volatile. So spreads were changing all of the time.”); DE 68 (██████ Tr.) 194:2–5 (“[T]he spread is kind of irrelevant when you’re showing prices in fast-moving markets, because you’re going to pitch it one way or another by a lot.”); *see also* DE 94 (CS-FXLIT-10291235) at 235 (un-excerpted portion of PE 1-88 in which ██████ says “thx, we have a spread grid but it hasnt been updated for about 8 months, so the numbers are completely off” and ██████ replies “oh yea its very different from 8 months ago”).

243. FX traders understood that there were normal spreads for currencies during normal market conditions. *See, e.g.*, PE 1-34 (07/04/08 chat discussing spreads in EUR/GBP and EUR/CHF “on a normal day”); PE 1-132 (06/05/09 chat with ██████ of Credit Suisse asking, “whats the normal spread on 100 usdsek and 100 usdnok?”); PE 1-37 (08/12/08 JPM Old Boys/Peaches chat discussing “normal spread” in 50 million and 100 million GBP/JPY); PE 1-170 (11/27/09 chat with ██████ telling Credit Suisse, “showed 8 in 100 eur compared to 6 normaly”); PE 1-271 (02/01/11 chat with ██████ of Credit Suisse asking, “whats normal morning spread in 25 eursek”); PE 1-7 (06/25/07 chat between Citi, Barclays and BNP traders to discuss the “normal spread in 100 kiwi [NZD/USD] these days”); PE 1-200 (05/20/10 chat between Deutsche Bank

and Credit Suisse traders discussing USD/CHF and EUR/CHF in “normal” liquidity “these days”); PE 1-319 (08/24/11 chat between Credit Suisse, Société Générale, Bank of America, and RBS traders in which they discuss the spread of NZD/USD in “normal market” conditions).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the terms “normal spreads” and “normal market conditions” are undefined and vague. Paragraph 243 offers no support for the stated proposition that all FX traders understood that there were normal spreads for currencies during normal market conditions. As Plaintiffs’ expert Mr. Robin has explained, FX spreads may vary based on a multitude of factors, including currency pair, date, time, trading location, trade size, customer identity, dealer positioning, and proximity to information releases. DE 1 (Robin Report) ¶¶ 39–41, 43–45 (citations omitted); *see also* PE 6 (██████ Tr.) 153:2–5 (“So normal market conditions in London are typically more liquid than say, Asia. So a spread in normal market conditions would actually change between centers.”); DE 17 (██████ Tr.) 318:12–18 (“Q. It is fair to say that to determine whether normal market conditions were prevailing at any particular point in time, you would need to go back and look at the facts around whether data had come out, whether relevant news had come out, things along those lines. Is that fair? A. Yes.”). Moreover, spreads during “normal” market conditions were not stable. *See* response to ¶ 242 *supra*.

244. Spreads correlate across trade sizes. *See* PE 25, Robin Ex. 1, 01/23/20 Robin Report at ¶74.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 244 offers no support for the stated proposition that all FX spreads correlate across trade sizes. Holding all other factors constant, an over the counter trade between a dealer and a customer in an FX instrument in a larger notional amount will generally have a larger spread than the same trade in a smaller notional amount. Credit

Suisse disputes that an increase or decrease in the spread of one notional amount necessarily affects spreads in other notional amounts; Credit Suisse further disputes that the relationship between the spreads in different volumes for a given currency pair is constant or can be derived mathematically. The factors that influence spreads vary over time. *See* responses to ¶¶ 242–43 *supra*.

245. The larger the trade size, the greater the risk; and therefore the wider the spread. “Buying 100 million EUR from a customer is less risky than buying 200 million EUR from that customer.” If the spread in 100 million EUR/USD changes, then the spread of 200 million EUR/USD would also change. *See* PE 21, 03/12/20 Melvin Report at ¶86; PE 25, Robin Ex. 1, 01/23/20 Robin Report at ¶74.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 245 offers no support for the stated proposition that traders in larger sizes always carry larger risk and therefore always have a wider spread. Trades in larger notional amounts generally carry greater risk and therefore generally see spreads wider than trades in smaller notional amounts. Credit Suisse disputes that trades for larger size notional amounts always see larger spreads than trades for smaller notional amounts. *See* responses to ¶¶ 242–44 *supra*.

246. FX traders understood trade size correlation and used it to calculate spreads at different notional sizes to manage risk. *See, e.g.*, PE 1-88 ([REDACTED]s at Credit Suisse asked “how wide would you make in 20usdnok?” [REDACTED] (Bank of America) replied “well on 50 I would be about 400-450... soo about 200”); PE 1-281 (02/17/11 chat where [REDACTED] (Credit Suisse) tells [REDACTED] (Deutsche Bank) that the spread in 50 million EUR/CHF should be 8 pips because he makes 5 pips in 20 million EUR/CHF); PE 1-207 ([REDACTED] at Citibank told [REDACTED] at Goldman Sachs that the spread for 500 million EUR/JPY should be 50 pips because “10 per 100 for 500 is g[oo]d spread”).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 246 offers no support for the stated proposition that all FX traders understood trade size correlation and used it to calculate spreads at different notional sizes to manage risk. Traders set spreads based on various factors including liquidity and volatility in the markets, as well as idiosyncratic factors that impact the spread on any given trade, such as macroeconomic events, the trader's current position at the time of the price quote, risk management decisions, the identity of the client, and the trade size. *See* DE 1 (Robin Report) ¶¶ 40–41, 43–45; *see also* responses to ¶¶ 242–45 *supra*.

247. Spreads also correlate across different currency pairs. *See* DE 1, Robin Report at ¶24.

**DEFENDANTS' RESPONSE:** Disputed in part. Credit Suisse objects that “correlate” is vague and undefined. Paragraph 247 offers no support for the stated proposition that all FX spreads correlate across different currency pairs. Mr. Robin does not provide any support for his assertion that “spreads in various currency pairs . . . correlate.” DE 1 (Robin Report) ¶ 24. The single source he cites in his report on this point does not relate to spread correlation. *Id.* at ¶ 24 n.15 (“[I]t is helpful to consider USD, EUR, and JPY ‘as central and other rates as satellites around them’ and noting that USD ‘serves as a convenient benchmark for considering currencies in Latin America, the Middle East, Africa and the Far East, such as the Brazilian real, the Saudi Arabian riyal, the Somalian shilling and the Singapore dollar.’” (citing Bob Steiner, FOREIGN EXCHANGE AND MONEY MARKETS: THEORY, PRACTICE AND RISK MANAGEMENT (2002))).

248. The horizontal spread correlation is most evident in the “crosses,” such as Australian Dollar/ New Zealand Dollar (AUD/NZD) currency pair. To trade the currency pair, a trader must “cross” through another currency, usually the dollar, but sometimes the euro. To sell AUD/NZD, for instance, a trader needs to go through the “legs.” The trader first sells AUD and

buys USD before selling USD and buying NZD. Therefore, widening of either leg (AUD/USD or NZD/USD) will widen the cross. *See* PE 39, 08/13/20 Robin Reply Report at ¶¶80-81, PE 1-176 (in response to a question regarding the spread in 100 million AUD/NZD, ██████████ (Barclays) wrote, “sounds stupid but 40-35 pips, that’s 12 [pips] in aud and 18 [pips] in nzd.”); PE 1-441 (in response to a question regarding the spread in 50 million GBP/CHF, Credit Suisse trader ██████████ stated “5-7 depend[ing] on eur chf”); PE 1-37 (08/12/08 JPM Old Boys/Peaches chat with ██████████ calculating the spread in GBP/JPY by using the spreads in EUR/JPY and EUR/GBP).

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the term “horizontal spread correlation” is undefined and vague. While certain “cross” currency pairs are traded through multiple “legs” of other currency pairs, the remainder of the discussion in ¶ 248 relates to particular situations in particular currency pairs at particular times and fails to support the broad proposition of horizontal correlation that Plaintiffs posit.

249. Almost 75% of global FX trading was conducted in G10 currencies. EUR/USD is the most heavily traded currency pair, followed by USD/JPY and GBP/USD. The U.S. dollar is part of over 80% of all FX transactions. *See* DE 1, Robin Report at ¶28, nn.21-22.

**DEFENDANTS’ RESPONSE:** Undisputed.

250. Due to the horizontal correlations between currency pairs, spread widening, especially in EUR/USD, would lead to a spread widening in other currency pairs. *See* DE 1, Robin Report at ¶42; PE 39, 08/13/20 Robin Reply Report at ¶¶54, 59-60.

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the term “horizontal correlations” is undefined and vague. Paragraph 250 offers no support for the stated proposition that spread widening in any currency pair would lead to spread widening in all other currency



pairs. Furthermore, Dr. Singer's empirical analysis demonstrates that spreads did not necessarily correlate across related currency pairs. As set forth in Table A2 of his merits rebuttal report, Dr. Singer's regression analysis found that, on average, interdealer spreads were narrower during the Class Period than the post-Class Period for AUD/CAD, but interdealer spreads were wider for AUD/USD and USD/CAD. *See* DE 59 (Aug. 13, 2020 Merits Rebuttal Report of Hal J. Singer Ph.D. ("Singer Merits Rebuttal Report")) at pp. 105–106, Table A2.

251. Because of their widespread use of chatrooms, Defendants could quickly monitor and enforce their conspiracy. *See, e.g.*, PE 1-357 (█████ (Barclays) asks, "what are u guys quoting in a quoting in 100 AUD [Australian/USD] now. 8...someone saying hsbc showing 6." █████ (JPM) responds "7-8" but that customers "can go swivel" as he is not quoting 6. █████ likewise replies 7-8. █████ asks █████ to check with █████ (HSBC), who is not a member of the chat room what HSBC is quoting. █████ likewise asks █████ to "ask him." █████ states "if he is ..tell him to stop it...its not big or clever." █████ then posts to the chat room the text from a separate chat he had with █████ in which █████ confirms he's not quoting 6 pips in 100 AUD now, but 7.); PE 40, █████ Ex. 5, CITI-FX-CIVIL\_00397480 at 7480 (on August 28, 2009, a Citi salesperson emailed █████ asking him to upgrade the spread matrix because a client claimed that banks "have tightened" their spreads. To assure the salesperson that there was no need to tighten Citi's spread, █████ replied "I have pretty good relationships in the market." He then listed the spreads various banks were quoting and wrote "if those banks are all 5-8 where could they be getting 3 from." █████ also reminded the salesperson that "Obviously we don't want [client] to know we are aware of what our competitors are showing them, so can we keep this e-mail for internal use only."); PE 1-193 (█████ at HSBC told traders at competing banks "if any of you showe 6-7 in 100 usd sgd...im going to kick the sht out of you").

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 251 offers no support for the stated proposition that Defendants could quickly monitor and enforce the alleged 52-currency pair, six-year conspiracy. Plaintiffs' citation of certain chat discussions about spreads ignores multiple features of the FX markets that would make monitoring of the alleged conspiracy impossible, including: the opacity of the dealer-to-customer segment (including that dealers had no visibility as to what spreads other dealers actually quoted to customers); variation in spreads due to trade, customer, and date-specific factors; other idiosyncratic factors that influence spread; and the extremely fast pace of the FX markets in which spreads and prices could change in seconds and in which traders were required to provide quotes within seconds of receiving client requests. *See* Credit Suisse 56.1 Statement ¶¶ 69–71; DE 1 (Robin Report) ¶¶ 17, 40–41, 43–45.

252. There could be repercussions if a chat room participant acted contrary to the discussions in the chat room. *See* PE 1-333 (09/22/11 Old Gits chat emphasizing a higher duty and loyalty to Gits members, “note to Gits---we have no friends, you want to be on this chat in 6 months? then you have no friends, no special prices, etc...no stepping up or any of that garbage”).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 252 offers no support for the proposition that all FX traders were subject to or imposed “repercussions” if a chat room participant acted contrary to the discussions in the chat room. Credit Suisse objects that the term “repercussions” and the phrase “acted contrary to the discussions” are vague and undefined. Plaintiffs have not provided any evidence to support the contention that there were “repercussions” for traders in chat rooms generally or specifically for the Old Gits chat room.

253. Defendants' customers generally were unaware that Defendants' FX traders were coordinating spreads in chat rooms. *See* PE 40, [REDACTED] Ex. 5, CITI-FX-CIVIL\_00397480 (08/28/09 email described in ¶251, *supra*).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 253 offers no support for the proposition that all of Defendants' FX traders coordinated spreads in chat rooms or that all customers were unaware of traders' discussions in chat rooms. *See* responses to ¶¶ 204, 210, 214–215 *supra*. Furthermore, many customers were aware that FX traders participated in interdealer chat rooms and that spreads were discussed in such chat rooms. *See, e.g.*, DE 78 (██████ Tr.) 314:13–22 (testifying that certain customers including “a lot of hedge funds” knew that he spoke to other FX traders); *see also* PE 1-161 (referencing DE 95 (BARC-FX-CIV\_00031408) (Oct. 2, 2009 chat among personnel from Barclays, Citi, Deutsche Bank, Morgan Stanley, Societe Generale, and customer ██████ which included discussions regarding spreads)); PE 1-297 (May 10, 2011 chat among Credit Suisse, Bank of America, UBS, and customer ██████ which included discussions regarding spreads).

254. FX traders would have felt uncomfortable telling their clients that they coordinated trading with their competitors and showing their chat room discussions doing so. *See* PE 40, ██████ Ex. 5, CITI-FX-CIVIL\_00397480 at 7480 (08/28/09 email described in SAMF ¶251, *supra*).

**DEFENDANTS' RESPONSE:** Disputed in part. Paragraph 254 offers no support for the stated propositions that FX traders would have felt uncomfortable telling their clients about particular chat room discussions and that all traders coordinated trading with their competitors. Moreover, all FX traders asked at deposition denied participation in a global FX price-fixing conspiracy. *See* Credit Suisse 56.1 Statement ¶¶ 89–105, 141. Also, many customers were aware of multibank chat rooms. *See* response to ¶ 253 *supra*.

255. Credit Suisse's own industry experts confirmed the existence of the conspiracy. Mr. Underwood, Credit Suisse's first industry expert, repeatedly opined that FX traders discussing

spreads in chat rooms was “collusive.” *See* PE 41, 07/30/20 McCrary Ex. 4, Underwood [REDACTED] Report at ¶34, p. 24.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 255 offers no support for the stated proposition that “the conspiracy” Plaintiffs allege ever existed. In Paragraph 34 of the cited report, Underwood opined that certain chat conduct FX trader [REDACTED] exhibited in The Cartel chat room “would be viewed as collusive” in the experience of Underwood, which does not support in any respect Plaintiffs’ allegation of a single global conspiracy involving hundreds of traders and 16 dealer banks to manipulate FX spreads in 52 currency pairs over six years. PE 41 (Underwood [REDACTED] Report) ¶ 34, p. 24. [REDACTED] testified at his civil deposition that while he inferred a “gentlemen’s agreement” with other members of The Cartel chat room, that agreement was limited to members of that particular chat room, that it did not include Credit Suisse, and that he did not participate in a larger, global conspiracy to manipulate FX spreads. *See* Credit Suisse 56.1 Statement ¶ 103.

256. In the report Mr. Underwood submitted on behalf of UBS in an arbitration between UBS and its former chief FX dealer, [REDACTED] (the “[REDACTED] Report”), Mr. Underwood concluded, “In my experience, the sharing of [spread] with competitors would be viewed as collusive and would contribute to reduced price competition to the detriment of clients.” *See* PE 41, 07/30/20 McCrary Ex. 4, Underwood [REDACTED] Report at ¶34, p. 24.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 256 offers no support for the stated proposition that “the conspiracy” Plaintiffs allege ever existed. The Underwood report reads: “In my experience, the sharing of **this information** with competitors would be viewed as collusive and would contribute to reduced price competition to the detriment of clients.” *See* PE 41

(Underwood [REDACTED] Report) ¶ 34, p. 24 (emphasis added). “This information” is a specific reference to [REDACTED]’s chat conduct, as discussed in response to Paragraph 255 *supra*.

257. Underwood also attested that the chats he reviewed “indicate that [REDACTED] knew or believed that traders under his supervision were trading based on confidential pricing information (such as spreads) shared in chatrooms with traders at competitor banks and colluding with traders at competitor banks.” *See* PE 41, 07/30/20 McCrary Ex. 4, Underwood [REDACTED] Report at ¶33, pp. 23-24.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 257 offers no support for the proposition that all FX traders, or all FX traders supervised by [REDACTED] at UBS, were trading based on confidential pricing information (such as spreads) shared in chat rooms with traders at competitor banks and colluding with traders at competitor banks. The citation to Mr. Underwood’s report addresses only the conduct of two particular UBS traders. *See* DE 96 (Nov. 30, 2016 Expert Report of Keith D. Underwood in [REDACTED] v. *UBS AG*) (UBS\_ZINC\_CIV\_000292437)) at 459–460, 464.

258. Professor Melvin conceded that FX spot traders at Defendant banks were competitors who engaged in “reality check[s]” in terms of what spreads to show customers. *See* PE 21, 03/12/20 Melvin Report at ¶135.

**DEFENDANTS’ RESPONSE:** Disputed. Professor Melvin never refers to the Defendant banks as “competitors” in Paragraph 135 of his report, *see also* response to ¶ 193 *supra*, and does not concede “that FX spot traders . . . engaged in ‘reality check[s]’” by quoting a trader who used that language. *See* PE 21 (Melvin Report) ¶ 135 (“[REDACTED] again comes to a chat room asking whether his view of spreads in four large size notional trade sizes in USD/CHF and EUR/CHF appears to be correct, calling it a ‘reality check.’”). In the very next paragraph, Professor Melvin

opines that “[i]t is unclear whether [REDACTED] was actually quoting spreads for any of these currency pairs or notional amounts to customers or simply trying to understand the market liquidity,” and that “a reasonable interpretation of this chat is that [REDACTED] was gathering market color on the liquidity in the market for very large trades, and there is no evidence that he was sharing spread CSI which had the effect of maintaining wider spreads to customers over a short- or long-term period of time.” *Id.* ¶ 136.

259. In his deposition testimony, Professor Melvin admitted the purpose of the chat rooms was for competitors to get the “right pricing” for customers. *See* PE 7, Melvin Dep. at 152:17-154:19.

**DEFENDANTS’ RESPONSE:** Disputed in part. Credit Suisse objects that the term “right pricing” is vague and undefined. Furthermore, Plaintiffs mischaracterize Professor Melvin’s testimony. Professor Melvin does not in his testimony or otherwise “admit[] the purpose of the chat rooms was for competitors to get the ‘right pricing’ for customers.” Referring to a March 7, 2012 chat (BARC-FX-CIV\_00208624), Plaintiffs asked Professor Melvin if it was his “interpretation that this is traders asking one another or sharing views on what general market liquidity is for [USD/ZAR]?” PE 7 (Melvin Tr.) 152:23–25. In response, Professor Melvin elaborated on his interpretation of the chat and testified that he “view[ed] this as the exchange of information on what should -- for a big rand trade, what is the right pricing?” *Id.* at 154:6–8. He further testified that: “And it is the same interpretation as I have earlier, and, you know, they can’t possibly believe that they are going to set the market, you know, four people in a chat are going to set the market on a currency that is traded globally by many other institutions. And clients would be happy to trade with others if their spreads are wider than what you are getting elsewhere. They

are not going to trade with these guys. So it is just not true that they can set the market and there is nowhere for clients to go. There are plenty of places for clients to go.” *Id.* at 154:9–19.

260. Dr. Hal Singer conducted an analysis of the FX market using a standard framework used by industrial organization economists known as the structure/conduct/performance (“SCP”) paradigm. *See* PE 13, 01/23/20 Singer Report at ¶3.

**DEFENDANTS’ RESPONSE:** Undisputed, but as discussed in response to Paragraphs 261 through 263 *infra*, Dr. Singer’s “SCP” analysis was flawed and unreliable. In addition, Plaintiffs’ opposition fails to put expert conclusions by Dr. Singer before the court in an admissible form. *See Berk v. St. Vincent’s Hosp. & Med. Ctr.*, 380 F. Supp. 2d 334, 352 (S.D.N.Y. 2005) (“Courts in this Circuit have uniformly held that unsworn expert reports do not satisfy the admissibility requirements of Fed. R. Civ. P. 56(e), and cannot be used to defeat a summary judgment motion without additional affidavit support.”).

261. Through assessment of classwide evidence, Dr. Singer found that, with regard to structure, the FX market was conducive to collusion, when considered under the factors set forth by the DOJ’s Price Fixing guidelines. *See* PE 13, 01/23/20 Singer Report at ¶4, p. 4.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 261 accurately describes Dr. Singer’s conclusions, but Credit Suisse does not concede that such conclusions are reliable or accurate. Critically, these conclusions also do not address the only questions before the Court on this motion: whether a single as opposed to separate, smaller conspiracies existed, and whether Credit Suisse participated in the alleged single conspiracy.

262. With respect to conduct, Defendants’ apparent coordination through chatrooms was pervasive in a statistical sense. *See* PE 13, 01/23/20 Singer Report at ¶4, pp. 5-7.

**DEFENDANTS’ RESPONSE:** Disputed. Paragraph 262 misrepresents Dr. Singer’s findings. Dr. Singer’s report concludes that the sharing of certain information was pervasive in the statistical sense, but he does and could not reach the same conclusion as to information sharing about spreads or as to discussions involving Credit Suisse. *See* DE 97 (Jan. 23, 2020 Merits Report of Hal J. Singer Ph.D. (“Singer Merits Report”)) ¶ 65; DE 98 (Feb. 20, 2020 Dep. of Hal Singer) 318:2–9 (“Q. Do you in your report offer any conclusions . . . as to whether any particular defendant participated in the alleged conspiracy? A. . . . I don’t think that identifying participants in the scope in that dimension was in the ambit of . . . my assignment here.”); *id* at 471:4–7 (“Q. Did you perform an analysis as to whether sharing of CSI about spreads in particular was pervasive, as opposed to sharing of all CSI? A. I don’t recall doing that.”). Critically, these conclusions do not address the only questions before the Court on this motion: whether a single as opposed to separate, smaller conspiracies existed, and whether Credit Suisse participated in the alleged single conspiracy.

263. Finally, with respect to performance, Dr. Singer provided a detailed statistical analysis of Defendants’ trades throughout the Class Period that also strongly supports an inference that a conspiracy existed among Defendants to widen spreads. Using a database of over 655 million Defendant FX trades with customers and corresponding trades in the FX interdealer (wholesale) market, Dr. Singer established through a widely-accepted, standard statistical technique, multiple regression analysis, that FX customer spreads widened to a statistically significant degree during the Class Period relative to the years 2014-15 after Defendants largely banned interbank chat rooms in 2012 and 2013. *See* PE 13, 01/23/20 Singer Report at ¶4, p. 8.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 263 offers no support for the stated proposition that all FX customer spreads widened to a statistically significant degree during the



Class Period relative to the years 2014 and 2015. Dr. Singer does not analyze FX customer spreads because no such data exists. Rather, Dr. Singer conducts a multi-step analysis that he mistakenly asserts allows him to draw conclusions about FX customer spreads. First, Dr. Singer analyzed interdealer spreads using data from EBS. Second, Dr. Singer compared customer FX *prices* to EBS *prices* to determine if the two data series are co-integrated. Because Dr. Singer concluded that the interbank prices and customer prices (not spreads) are co-integrated he asserts that his interbank spread analysis can be extrapolated to customer spreads. Furthermore, Dr. Singer himself concedes that he did not find that interbank spreads widened for all currency pairs during the Class Period. Rather, he found that for half of the currency pairs that he analyzed, interdealer spreads were *narrower* during the Class Period. DE 59 (Singer Merits Rebuttal Report) at pp. 105–106, Table A2 (finding spread narrowing (on average) for half of the currency pairs analyzed). As to certain currency pairs, Dr. Singer finds that on average interdealer spreads were actually narrower during the Class Period. *Id.* at pp. 105–106, Table A2. Significantly, Dr. Singer only analyzed spread averages and his results do not conclude that all spreads widened. Credit Suisse further disputes the statement that Dr. Singer reviewed “655 million Defendant FX trades”; Dr. Singer reviewed 655 million “data points,” not Defendant trades. *See* DE 97 (Singer Merits Report) ¶ 58. Critically, these conclusions also do not address the only questions before the Court on this motion: whether a single as opposed to separate, smaller conspiracies existed, and whether Credit Suisse participated in the alleged single conspiracy.

264. Beginning in late 2012 and continuing through 2013, Defendants prohibited their traders from participating in multi-bank chat rooms. *See, e.g.*, PE 1-424 (10/02/12 chat between ██████ of Credit Suisse and ██████ of Goldman Sachs with ██████ saying that Barclays and RBS shut down chat rooms because they worried that the government would look into FX manipulations after the Libor Scandal); PE 1-435 (12/06/12 chat discussing closing bank chats at Barclays and Morgan Stanley); PE 1-425 (10/16/12 chat with ██████ stating, “mate im sorry i dont want to sound like an idiot, but I’m not allowed to discuss sopreads on chat anymore...its a bit ridiculous but it could be seen as price fixing apparently.”); PE 1-444 (02/28/13 chat in which ██████ (UBS) tells the chat room participants that he can no longer stay in group chats and ██████ says the reason of banning chat rooms is “collusion”); PE 34, ██████ Dep. at 180:16-181:7 (A. [T]he fact is by the end of 2012 the majority of people didn’t have chats ....); PE 33, ██████ Dep. at 143:3-144:9 (A: I think it came down from pretty much every bank all at the same time, where banks were just shutting down chats with non-clients.).

**DEFENDANTS’ RESPONSE:** Undisputed that some Defendant banks prohibited traders from participating in multibank chat rooms toward the end of the Class Period.

265. Beginning in 2013, Defendants terminated, suspended, or oversaw the departure of numerous FX traders whose collusive activities animated the chat rooms. *See* ECF No. 1198 Appendix C.

**DEFENDANTS’ RESPONSE:** Disputed in part. Some Defendant banks terminated or suspended traders, but not all banks did. *See* May 31, 2018 Pls.’ Mem. of Law in Supp. of Class Cert. (ECF No. 1198) at Appx. C.

266. On November 13, 2017, the New York State Department of Financial Services issued a Consent Order Under New York Banking Law §§ 39, 44, and 44-a against Credit Suisse AG and Credit Suisse AG, New York Branch (“NYDFS/Credit Suisse Consent Order”). *See* PE 17, [REDACTED] Ex. 17, NYDFS/Credit Suisse Consent Order.

**DEFENDANTS’ RESPONSE:** Disputed in part. On November 13, 2017, the New York State Department of Financial Services issued a Consent Order Under New York Banking Law §§ 39, 44, and 44-a against Credit Suisse AG and Credit Suisse AG, New York Branch. Credit Suisse disputes both the relevance and admissibility of the NYDFS consent order. The consent order pertains to findings under New York law and does not contain any admission of fact, nor does the consent order speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here. *See* Credit Suisse 56.1 Statement ¶ 118; *see also* responses to ¶¶ 204, 210, 214–215 *supra*.

267. The NYDFS/Credit Suisse Consent Order states that NYDFS and Credit Suisse “stipulate and agree” that “Credit Suisse has conducted business in an unsafe and unsound manner” and violated other provisions of New York law. *See* PE 17, [REDACTED] Ex. 17, NYDFS/Credit Suisse Consent Order at ¶¶ 82-86.

**DEFENDANTS’ RESPONSE:** Undisputed, but the consent order pertains to findings under New York law and does not contain any admission of fact, nor does the consent order speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

268. In the NYDFS/Credit Suisse Consent Order, the NYDFS found that “[f]or many years, Credit Suisse FX traders participated in multi-party electronic chat rooms, where traders shared information to support coordinated trading activity, and attempt to manipulate currency prices or benchmark rates.” *See* PE 17, [REDACTED] Ex. 17, NYDFS/Credit Suisse Consent Order at ¶ 11.

**DEFENDANTS' RESPONSE:** Undisputed *but see* responses to Paragraphs 266 through 267 *supra*. The consent order pertains to findings under New York law and does not contain any admission of fact, nor does the consent order speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

269. In the NYDFS/Credit Suisse Consent Order, the NYDFS found that Credit Suisse committed “Spread Collusion” through “inappropriate sharing of information regarding spreads for trading in certain currency pairs.” *See* PE 17, [REDACTED] Ex. 17, NYDFS/Credit Suisse Consent Order at ¶36.

**DEFENDANTS' RESPONSE:** Undisputed *but see* responses to Paragraphs 266 through 267 *supra*. The consent order pertains to findings under New York law and does not contain any admission of fact, nor does the consent order speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

270. On November 11, 2014, United States Office of the Comptroller of the Currency issued a Consent Order against Bank of America, N.A. finding “[w]hile participating in multibank chatrooms, some of the Bank’s G10 spot FX traders discussed engaging in potential misconduct with traders from other banks or market participants, including ... disclosure of ... proprietary Bank information, such as FX rate spreads.” *See* November 11, 2014 Consent Order at ¶13, *available at* <https://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157a.pdf>.

**DEFENDANTS' RESPONSE:** Disputed in part. On November 11, 2014, the United States Office of the Comptroller of the Currency issued a Consent Order against Bank of America and Paragraph 270 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent

order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

271. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against Defendants Barclays Bank PLC and Barclays Bank PLC New York Branch (collectively “Barclays”) finding that Barclays did not detect and address “unsafe and unsound conduct by the Bank’s and the Branch’s FX traders, including in communications by traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions regarding bid/offer spreads offered to FX customers.” See NYDFS-Barclays Consent Order at 1, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a3.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against Barclays. There is an error in the citation; it should be to the Federal Reserve consent order, not the NYDFS consent order. Credit Suisse disputes that such information is relevant, admissible, or evidence of a single global conspiracy at issue in the action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

272. On May 20, 2015, the New York State Department of Financial Services issued a Consent Order Under New York Banking Law §§ 44 and 44-a against Barclays which stated that at “during at least 2008 through 2012 ... Barclays conspired with other banks in order to ...

coordinate bid/ask spreads charged.” See NYDFS-Barclays Consent Order at 1, *available at* [https://www.dfs.ny.gov/system/files/documents/2020/04/ea150520\\_barclays.pdf](https://www.dfs.ny.gov/system/files/documents/2020/04/ea150520_barclays.pdf).

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 20, 2015, the New York State Department of Financial Services issued a Consent Order Under New York Banking Law §§ 44 and 44-a against Barclays and Paragraph 272 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

273. In May 2015, Barclays pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the District of Connecticut for, among other things, entering into and engaging “in a combination and conspiracy to fix, stabilize, maintain, increase, or decrease the price of, and rig bids and offers for, the euro/U.S. dollar (‘EUR/USD’) currency pair exchange in the foreign currency exchange spot market” from at least as early as December 2007 until at least January 2013. See Barclays Guilty Plea at ¶2, *available at* <https://www.justice.gov/atr/file/838001/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. Barclays entered into a plea agreement in May 2015. Credit Suisse disputes the time frame; the plea agreement states that Barclays participated in the conspiracy at issue from December 2007 until at least August 2012. See Barclays Guilty Plea at ¶ 4(g), *available at* <https://www.justice.gov/atr/file/838001/download>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The Barclays guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

274. In January 2018, BNP Paribas USA, Inc. pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the Southern District of New York (Case No. 1:18-cr-00061-JSR) for, among other things, “entering into a combination and conspiracy to suppress and eliminate competition by fixing prices for Central and Eastern European, Middle Eastern, and African (‘CEEMEA’) currencies traded in the United States and elsewhere, from at least as early as September 2011 and continuing until at least July 2013.” *See* BNP Guilty Plea at ¶2, *available at* <https://www.justice.gov/atr/case-document/file/1054606/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. BNP Paribas entered into a plea agreement in January 2018 and Paragraph 274 quotes the agreement accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The BNP Paribas guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

275. On May 24, 2017, the New York State Department of Financial Services issued a Consent Order against BNP Paribas S.A. and BNP Paribas S.A., New York Branch finding BNP engaged in “collusion in setting spreads for customers trading in certain currencies, in order to widen the spreads and artificially increase profits.” *See* NYDFS-BNP Consent Order at ¶5, *available at* [https://dfs.ny.gov/system/files/documents/2020/03/ea170524\\_bnp\\_paribas.pdf](https://dfs.ny.gov/system/files/documents/2020/03/ea170524_bnp_paribas.pdf).

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 24, 2017, the New York State Department of Financial Services issued a Consent Order against BNP Paribas and Paragraph 275 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

276. On July 17, 2017, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against BNP Paribas S.A., BNP Paribas USA, Inc., and BNP Paribas Securities Corp. finding BNP engaged in “discussions regarding bid/offer spreads offered to FX customers with traders of other institutions.” See Fed.-BNP Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20170717a1.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On July 17, 2017 the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and an Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against BNP Paribas and Paragraph 276 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

277. On January 4, 2017, Jason Katz — former Head of FX for Standard Bank from 2001-2010, Director, Emerging Markets FX for Barclays from 2010-2011, and CEEMEA trader at BNP Paribas from 2011-2013 — pleaded guilty to a one-count Information, in the United States District Court for the Southern District of New York, in which he was “charged with knowingly entering into and engaging in a combination and conspiracy to suppress and eliminate competition by fixing prices for Central and Eastern European, Middle Eastern, and African Emerging Markets currencies (‘CEEMEA’ currencies) from at least as early as January 2007 and continuing until at least July 2013, in violation of Section One of the Sherman Antitrust Act, 15 U.S.C. § 1.” See Plea



Agreement of Jason Katz at ¶ 1, *available at* <https://www.justice.gov/atr/case-document/file/946731/download>.

**DEFENDANTS' RESPONSE:** Disputed in part. On January 4, 2017, Jason Katz pleaded guilty to a one-count Information and Paragraph 277 quotes the plea agreement accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. Mr. Katz's guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here. Mr. Katz testified that the conspiracy to which he pleaded guilty was limited to the four participants of the ZAR Chat chat room— Jason Katz (formerly of Barclays and BNP), [REDACTED] (formerly of JPMorgan), [REDACTED] (formerly of Citi), and [REDACTED] (formerly of Barclays); did not involve Credit Suisse; was limited to the Central and Eastern European, Middle Eastern, and African currency pairs; and that he did not participate in global conspiracy to fix FX spreads. *See* Credit Suisse 56.1 Statement ¶¶ 138–141.

278. On November 11, 2014, the United States Office of the Comptroller of the Currency issued a Consent Order against Citibank, N.A. finding that “[w]hile participating in multibank chatrooms, some of the Bank’s G10 spot FX traders discussed engaging in potential misconduct with traders from other banks or market participants, including ... disclosure of ... proprietary Bank information, such as FX rate spreads.” *See* <https://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157c.pdf>.

**DEFENDANTS' RESPONSE:** Disputed in part. On November 11, 2014, the United States Office of the Comptroller of the Currency issued a Consent Order against Citibank and Paragraph 278 quotes that order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order

does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

279. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against Citigroup Inc. finding that Citigroup allowed “unsafe and unsound conduct by the Bank’s FX traders, including in communications by traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions regarding bid/offer spreads offered to FX customers.” *See* Fed.-Citigroup Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a5.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Pursuant to the Federal Deposit Insurance Act against Citigroup. Credit Suisse disputes that the Federal Reserve found that Citi “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that Citi’s “deficient policies and procedures prevented Citigroup from detecting and addressing” the unsafe and unsound conduct. Citigroup Federal Reserve Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a5.pdf>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

280. In May 2015, CitiCorp pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the District of Connecticut for,

among other things, entering into and engaging “in a combination and conspiracy to fix, stabilize, maintain, increase, or decrease the price of, and rig bids and offers for, the euro/U.S. dollar (‘EUR/USD’) currency pair exchange in the foreign currency exchange spot market” from at least as early as December 2007 until at least January 2013. *See* CitiCorp Plea Agreement at ¶2, *available at* <https://www.justice.gov/atr/file/837546/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. CitiCorp entered into a plea agreement in May 2015 and Paragraph 280 quotes the agreement accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The Citi guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

281. On January 13, 2017, Christopher Cummins, a CEEMEA spot trader for Citibank, pleaded guilty in the United States District Court for the Southern District of New York to “knowingly entering into and engaging in a combination and conspiracy to suppress and eliminate competition by fixing prices for Central and Eastern European, Middle Eastern, and African Emerging Markets currencies (‘CEEMEA’ currencies) from at least as early as January 2007 and continuing until at least July 2013, in violation of Section One of the Sherman Antitrust Act, 15 U.S.C. § 1.” *See* Plea Agreement of Christopher Cummins at 1, *available at* <https://www.justice.gov/atr/case-document/file/930946/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On January 13, 2017 Christopher Cummins entered into a guilty plea in the United States District Court for the Southern District of New York and Paragraph 281 quotes the plea agreement accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The Cummins guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged

conspiracy that Plaintiffs claim here. Furthermore, [REDACTED] testified that the conspiracy which he pleaded guilty to was limited to the four participants of the ZAR Chat chat room— [REDACTED] (formerly of Citi), [REDACTED] (formerly of Barclays and BNP), [REDACTED] (formerly of JPMorgan), and [REDACTED] (formerly of Barclays); did not involve Credit Suisse; was limited to the Central and Eastern European, Middle Eastern, and African currency pairs; and that he did not participate in a global conspiracy to fix FX spreads. *See* Credit Suisse 56.1 Statement ¶¶ 138–141.

282. [REDACTED] engaged in similar behavior as the behavior detailed by the government in the “ZAR Chat” chat room in other multibank chat rooms such as the “Old Gits” chat room. *See* DE 32, [REDACTED] Tr. 36:7-23; *see also* PE 9, [REDACTED] Dep. at 175:6-177:21.

**DEFENDANTS’ RESPONSE:** Disputed in part. Paragraph 282 offers no support for the stated proposition that [REDACTED] engaged in “similar behavior” as the behavior detailed in his guilty plea relating to the ZAR Chat chat room in other chat rooms. When asked by Plaintiffs whether he “engaged in similar misbehavior [to the ZAR Chat chat room] in the Old Gits chatroom,” [REDACTED] replied “correct,” but he elaborated that “the behavior in ZAR chat somehow was, was the most focused and the most orchestrated,” and that “in ZAR chat, the pricing contributions were extremely explicit as compared to other chat rooms.” *See* DE 32 ([REDACTED] Tr.) 36:7–16; *see also* PE 9 ([REDACTED] Tr.) 175:6–176:6.

283. On June 20, 2018, the New York State Department Financial Services issued a Consent Order under New York Banking Law §§ 39 and 44 against Deutsche Bank AG and Deutsche Bank AG New York Branch finding Deutsche Bank traders used “online chat rooms to discuss coordinating with traders at other banks in efforts to improperly affect FX prices.” *See*

NYDFS-DB Consent Order at 2, *available at*  
[https://www.dfs.ny.gov/system/files/documents/2020/03/ea180620\\_deutsche.pdf](https://www.dfs.ny.gov/system/files/documents/2020/03/ea180620_deutsche.pdf).

**DEFENDANTS' RESPONSE:** Disputed in part. On June 20, 2018, the New York State Department of Financial Services issued a Consent Order against Deutsche Bank and Paragraph 283 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

284. On May 1, 2018, the New York State Department of Financial Services issued a Consent Order Under New York Banking Law §§ 39 and 44 against The Goldman Sachs Group, Inc., finding that “[c]ertain Goldman Sachs traders engaged in discussions that suggested potential efforts that could improperly affect FX prices,” and cited specific chats discussing spreads shown to customers as examples of such misconduct. *See* NYDFS-Goldman Consent Order at ¶¶23-34, *available at*  
[https://www.dfs.ny.gov/system/files/documents/2020/03/ea180501\\_goldman\\_sachs.pdf](https://www.dfs.ny.gov/system/files/documents/2020/03/ea180501_goldman_sachs.pdf).

**DEFENDANTS' RESPONSE:** Disputed in part. The New York State Department of Financial Services issued a Consent Order against Goldman Sachs and Paragraph 284 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

285. On May 1, 2018, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against The

Goldman Sachs Group, Inc., finding Goldman Sachs allowed “unsafe and unsound conduct by certain of the [Goldman Sachs] FX Subsidiaries’ FX traders, including in communications by traders in multibank chatrooms, consisting of ... discussions with traders of other institutions regarding bid/offer spreads offered to FX customers.” *See* Fed.-Goldman Cease and Desist Order at 3, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20180501b1.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 1, 2018, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against Goldman Sachs. Credit Suisse disputes that the Federal Reserve found that Goldman Sachs “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that Goldman Sachs “deficient policies and procedures it prevented Goldman Sachs from detecting and addressing” the unsafe and unsound conduct. Goldman Sachs Federal Reserve Cease and Desist Order at 3, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20180501b1.pdf>. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

286. On September 29, 2017, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against HSBC Holdings PLC and HSBC North America Holdings Inc., finding HSBC allowed “unsafe and unsound conduct by certain of its FX traders ... including in communications by

traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions to coordinate FX trading in a manner designed to influence ... market prices generally” and “disclosures to traders of other institutions of confidential information of HSBC.”

*See* Fed.-HSBC Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20170929a1.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On September 29, 2017, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against HSBC. Credit Suisse disputes that the Federal Reserve found that HSBC “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that HSBC’s “deficient policies and procedures prevented it from detecting and addressing” the unsafe and unsound conduct. HSBC Federal Reserve Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20170929a1.pdf>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

287. On November 11, 2014, the United States Office of the Comptroller of the Currency issued a Consent Order against JPMorgan Chase Bank, N.A. finding that “[w]hile participating in multibank chatrooms, some of the Bank’s G10 spot FX traders discussed engaging in potential misconduct with traders from other banks or market participants, including ... [d]isclosure of ... proprietary Bank information, such as FX rate spreads.” *See* OCC-JPM Consent Order at 4-5, *available at* <https://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157e.pdf>.

**DEFENDANTS' RESPONSE:** Disputed in part. On November 11, 2014, the United States Office of the Comptroller of the Currency issued a Consent Order against JPMorgan and Paragraph 287 quotes the order accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The consent order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

288. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against JPMorgan Chase & Co., finding that JPMorgan allowed “unsafe and unsound conduct by [JPMorgan’s] FX Subsidiaries’ traders, including in communications by traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions regarding bid/offer spreads offered to FX customers.” See Fed.-JPM Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a2.pdf>.

**DEFENDANTS' RESPONSE:** Disputed in part. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against JPMorgan. Credit Suisse disputes that the Federal Reserve found that JPMorgan “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that JPMorgan’s “deficient policies and procedures prevented [JPMorgan] from detecting and addressing” the unsafe and unsound conduct. JPM Federal Reserve Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a2.pdf>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the



single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

289. In May 2015, JPMorgan Chase & Co. pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the District of Connecticut for, among other things, entering into and engaging “in a combination and conspiracy to fix, stabilize, maintain, increase, or decrease the price of, and rig bids and offers for, the euro/U.S. dollar (‘EUR/USD’) currency pair exchange in the foreign currency exchange spot market” from at least as early as December 2007 until at least January 2013. *See JPM Guilty Plea at ¶2, available at <https://www.justice.gov/atr/file/837551/download>.*

**DEFENDANTS’ RESPONSE:** Disputed in part. JPMorgan entered into a plea agreement in May 2015. Credit Suisse disputes the time frame; JPMorgan was only found to have participated in the conspiracy from July 2010 to January 2013. *See JPM Guilty Plea at ¶ 2, available at <https://www.justice.gov/atr/file/837551/download>.* Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The JPMorgan guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

290. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against the Royal Bank of Scotland PLC and RBS Securities Inc., finding that RBS allowed “unsafe and unsound conduct by its FX traders, including in communications by traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions regarding

bid/offer spreads offered to FX customers.” *See* Fed.-RBS Cease and Desist Order at 3-4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a4.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against RBS. Credit Suisse disputes that the Federal Reserve found that RBS “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that RBS’s “deficient policies and procedures prevented RBS from detecting and addressing” the unsafe and unsound conduct. RBS Federal Reserve Cease and Desist Order at 3, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a4.pdf>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

291. In May 2015, The Royal Bank of Scotland PLC pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the District of Connecticut for, among other things, entering into and engaging “in a combination and conspiracy to fix, stabilize, maintain, increase, or decrease the price of, and rig bids and offers for, the euro/U.S. dollar (‘EUR/USD’) currency pair exchanged in the foreign currency exchange spot market” from at least as early as December 2007 until at least January 2013. *See* RBS Guilty Plea at ¶2, *available at* <https://www.justice.gov/atr/file/838541/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. RBS entered into a plea agreement in May 2015. Credit Suisse disputes the time frame; RBS was only found to have participated in the conspiracy from December 2007 to at least April 2010. RBS Guilty Plea at ¶ 2, *available at*

<https://www.justice.gov/atr/file/838541/download>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The RBS guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

292. On May 20, 2015, the United States Board of Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act, as Amended, against UBS AG and UBS AG Stamford Branch, finding that UBS allowed “unsafe and unsound conduct by the Bank’s and the Branch’s FX traders, including in communications by traders in multibank chatrooms, consisting of ... possible agreements with traders of other institutions regarding bid/offer spreads offered to FX customers.” *See* UBS Cease and Desist Order at 4-5, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a6.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On May 20, 2015, the United States Governors of the Federal Reserve System issued an Order to Cease and Desist and Order of Assessment of a Civil Money Penalty Issued Upon Consent Pursuant to the Federal Deposit Insurance Act against UBS. Credit Suisse disputes that the Federal Reserve found that UBS “allowed” “unsafe and unsound conduct by the Bank’s FX traders.” The order states that UBS’s “deficient policies and procedures prevented UBS from detecting and addressing” the unsafe and unsound conduct. UBS Federal Reserve Cease and Desist Order at 4, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20150520a6.pdf>. Credit Suisse further disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The cease and desist order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

293. In May 2015, UBS AG pleaded guilty to violating Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) in the United States District Court for the District of Connecticut. As part of its guilty plea, UBS admitted, “UBS, through one of its FX traders, conspired with other financial services firms acting as dealers in an FX spot market by agreeing to restrain competition in the purchase and sale of the EUR/USD currency pair in the United States and elsewhere .... from in or about October 2011 and continued until at least January 2013.” *See* UBS Guilty Plea at Ex. 1, ¶15, *available at* <https://www.justice.gov/file/440521/download>.

**DEFENDANTS’ RESPONSE:** Disputed in part. UBS entered into a plea agreement in May 2015 and Paragraph 293 quotes the agreement accurately. Credit Suisse disputes that such information is relevant, admissible, or evidence of the single global conspiracy at issue in this action. The UBS guilty plea does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

294. On July 19, 2016, the United States Board of Governors of the Federal Reserve System issued an Order of Prohibition Issued Upon Consent Pursuant to Section 8(e) of the Federal Deposit Insurance Act, as Amended, against former Barclays and UBS employee Matthew Gardiner, finding that Gardiner “routinely engaged in unsafe and unsound conduct, including in communications by traders in multibank electronic chatrooms, consisting, among other things, of ...coordinating with traders of other institutions regarding bid/offer spreads offered to FX customers.” *See* Fed.-Gardiner Order of Prohibition at 2, *available at* <https://www.federalreserve.gov/newsevents/pressreleases/files/enf20160719a1.pdf>.

**DEFENDANTS’ RESPONSE:** Disputed in part. On July 19, 2016, the United States Board of Governors of the Federal Reserve System issued an Order of Prohibition against Matthew Gardiner and Paragraph 294 quotes that order accurately. Credit Suisse disputes that such information is

relevant, admissible, or evidence of the single global conspiracy at issue in this action. The order does not speak to the 16-bank, 52-currency pair, six year alleged conspiracy that Plaintiffs claim here.

Dated: April 9, 2020  
New York, New York

**CAHILL GORDON & REINDEL LLP**

By: /s/ Herbert S. Washer  
Herbert S. Washer  
David G. Januszewski  
Elai Katz  
Jason M. Hall  
Sheila C. Ramesh  
32 Old Slip  
New York, New York 10005  
Telephone: (212) 701-3000  
Facsimile: (212) 269-5420  
hwasher@cahill.com  
djanuszewski@cahill.com  
ekatz@cahill.com  
jhall@cahill.com  
sramesh@cahill.com

*Attorneys for Defendants Credit Suisse  
Group AG, Credit Suisse AG, and Credit  
Suisse Securities (USA) LLC*